



ENVIRONMENTAL ASSESSMENT BOARD

VOLUME: 355

DATE: Thursday, February 20, 1992

BEFORE:

A. KOVEN Chairman

E. MARTEL Member

FOR HEARING UPDATES CALL (COLLECT CALLS ACCEPTED) (416) 963-1249

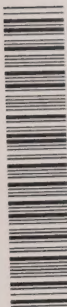
**FARR &
ASSOCIATES
REPORTING INC.**

(416) 482-3277

2300 Yonge St., Suite 709, Toronto, Canada M4P 1E4



CAJON
EAB
-H 26



3 1761 11653210 2



ENVIRONMENTAL ASSESSMENT BOARD

VOLUME: 355

DATE: Thursday, February 20, 1992

BEFORE:

A. KOVEN Chairman

E. MARTEL Member

FOR HEARING UPDATES CALL (COLLECT CALLS ACCEPTED) (416) 963-1249

EARR
ASSOCIATES &
REPORTING INC.

(416) 482-3277

2300 Yonge St., Suite 709, Toronto, Canada M4P 1E4



HEARING ON THE PROPOSAL BY THE MINISTRY OF NATURAL
RESOURCES FOR A CLASS ENVIRONMENTAL ASSESSMENT FOR
TIMBER MANAGEMENT ON CROWN LANDS IN ONTARIO

IN THE MATTER of the Environmental
Assessment Act, R.S.O. 1980, c.140;

- and -

IN THE MATTER of the Class Environmental
Assessment for Timber Management on Crown
Lands in Ontario;

- and -

IN THE MATTER of a Notice by The Honourable
Jim Bradley, Minister of the Environment,
requiring the Environmental Assessment
Board to hold a hearing with respect to a
Class Environmental Assessment (No.
NR-AA-30) of an undertaking by the Ministry
of Natural Resources for the activity of
Timber Management on Crown Lands in
Ontario.

Hearing held at the offices of the Ontario
Highway Transport Board, Britannica Building,
151 Bloor Street West, 10th Floor, Toronto,
Ontario, on Thursday, February 20th, 1992,
commencing at 8:30 a.m.

VOLUME 355

BEFORE:

MRS. ANNE KOVEN
MR. ELIE MARTEL

Chairman
Member

A P P E A R A N C E S

MR. V. FREIDIN, Q.C.	)	MINISTRY OF NATURAL
MS. C. BLASTORAH	)	RESOURCES
MS. K. MURPHY)	
MR. B. CAMPBELL)	
MS. J. SEABORN	)	MINISTRY OF ENVIRONMENT
MS. N. GILLESPIE)	
MR. R. TUER, Q.C.	)	ONTARIO FOREST INDUSTRY
MR. R. COSMAN	)	ASSOCIATION and ONTARIO
MS. E. CRONK	)	LUMBER MANUFACTURERS'
MR. P.R. CASSIDY	)	ASSOCIATION
MR. D. HUNT)	
MR. R. BERAM		ENVIRONMENTAL ASSESSMENT BOARD
MR. J.E. HANNA	)	ONTARIO FEDERATION
DR. T. QUINNEY	)	OF ANGLERS & HUNTERS
MR. D. O'LEARY		
MR. D. HUNTER	)	NISHNAWBE-ASKI NATION
MR. M. BAEDER	)	and WINDIGO TRIBAL COUNCIL
MS. M. SWENARCHUK	)	FORESTS FOR TOMORROW
MR. R. LINDGREN)	
MR. D. COLBORNE	)	GRAND COUNCIL TREATY #3
MR. G. KAKEWAY)	
MR. J. IRWIN		ONTARIO METIS & ABORIGINAL ASSOCIATION
MS. M. HALL		KIMBERLY-CLARK OF CANADA LIMITED and SPRUCE FALLS POWER & PAPER COMPANY



Digitized by the Internet Archive
in 2023 with funding from
University of Toronto

<https://archive.org/details/31761116532102>

APPEARANCES (Cont'd):

MR. R. COTTON		BOISE CASCADE OF CANADA LTD.
MR. Y. GERVAIS	)	ONTARIO TRAPPERS
MR. R. BARNES	)	ASSOCIATION
MR. L. GREENSPOON	)	NORTHWATCH
MS. B. LLOYD)	
MR. J.W. ERICKSON, Q.C.)		RED LAKE-EAR FALLS JOINT
MR. B. BABCOCK	)	MUNICIPAL COMMITTEE
MR. D. SCOTT	)	NORTHWESTERN ONTARIO
MR. J.S. TAYLOR	)	ASSOCIATED CHAMBERS OF COMMERCE
MR. J.W. HARBELL		GREAT LAKES FOREST
MR. S.M. MAKUCH		CANADIAN PACIFIC FOREST PRODUCTS LTD.
MR. D. CURTIS	)	ONTARIO PROFESSIONAL
MR. J. EBBS	)	FORESTERS ASSOCIATION
MR. D. KING		VENTURE TOURISM ASSOCIATION OF ONTARIO
MR. H. GRAHAM		CANADIAN INSTITUTE OF FORESTRY (CENTRAL ONTARIO SECTION)
MR. G.J. KINLIN		DEPARTMENT OF JUSTICE
MR. S.J. STEPINAC		MINISTRY OF NORTHERN DEVELOPMENT & MINES
MR. M. COATES		ONTARIO FORESTRY ASSOCIATION
MR. P. ODORIZZI		BEARDMORE-LAKE NIPIGON WATCHDOG SOCIETY

APPEARANCES (Cont'd):

MR. R.L. AXFORD	CANADIAN ASSOCIATION OF SINGLE INDUSTRY TOWNS
MR. M.O. EDWARDS	FORT FRANCES CHAMBER OF COMMERCE
MR. P.D. McCUTCHEON	GEORGE NIXON
MR. C. BRUNETTA	NORTHWESTERN ONTARIO TOURISM ASSOCIATION

I N D E X O F P R O C E E D I N G S

<u>Witness:</u>	<u>Page No.</u>
<u>JEFFREY PATCH,</u> <u>JACK WARD THOMAS,</u> <u>RICHARD PAGE,</u> Resumed	61825
Continued Cross-Examination by Mr. Freidin	61825
Further Cross-Examination by Mr. Freidin	61952
Re-Direct Examination by Mr. O'Leary	61957

I N D E X O F E X H I B I T S

<u>Exhibit No.</u>	<u>Description</u>	<u>Page No.</u>
2109A	Marten habitat supply for Red Lake Timber Management Plan as depicted through MAD OWOSFOP area calculation prepared by Messrs. Page and Patch.	61863
2109B	Marten habitat supply for Red Lake Timber Management Plan as depicted through FORMAN volume calculation prepared by Messr. Page and Patch.	61863
2109C	Two-page excerpt consisting of Appendix F, page 5, and Appendix G, page 3, from Red Lake Crown Management Unit Timber Management Plan, 1992-1997.	61865

1 ---Upon commencing at 8:30 a.m.

2 MADAM CHAIR: Good morning. Please be
3 seated.

4 Good morning, Mr. Freidin.

5 MR. FREIDIN: Good morning.

6 JEFFREY PATCH,
7 JACK WARD THOMAS,
8 RICHARD PAGE, Resumed.

9 MR. FREIDIN I took to heart some of the
10 evidence about OCCAM's razor and I've done some
11 slashing and I think we'll be through about the middle
12 of the morning some time.

13 MADAM CHAIR: Are you joking, Mr.
14 Freidin?

15 MR. FREIDIN: No, no, I'm not. I
16 wouldn't joke about such a serious matter.

17 CONTINUED CROSS-EXAMINATION BY MR. FREIDIN:

18 Q. Dr. Page, yesterday we talked about
19 the development of your HAP model and you made
20 reference to a workshop which started the whole thing,
21 and am I correct that that workshop took place in 1985?

22 DR. PAGE: A. That's correct.

23 Q. Thank you. I think it's your
24 evidence that the model that you have developed for
25 your research area on Vancouver Island could be
modified and be used in other areas of British

1 Columbia?

2 A. The principles of the model can be
3 applied in other places, yes.

4 Q. All right. And I also understand
5 it's your evidence that the principles can be applied
6 for the purposes of modifying the model for use in
7 Ontario; is that correct?

8 A. Yes, sir, that's correct.

9 Q. And is it probable that having regard
10 to the size of the undertaking that the model, if it
11 were going to be modified for Ontario, might have to be
12 modified sort of more than once; in other words, you
13 would have to have a modification, say, perhaps for
14 northwestern Ontario, you may have to take those
15 principles and modify it again for another part of the
16 area of the undertaking because the area of the
17 undertaking is so large?

18 A. I would suggest the model be modified
19 for each ecological unit which, in this case, there's
20 only two, the boreal forest and the Great Lakes/St.
21 Lawrence. The model would be for moose in one area and
22 deer in the other.

23 Q. All right. Now, the models that you
24 have, Dr. Patch, in New Brunswick, we talked marten --
25 dealing with marten we talked about dealing with deer

1 winter habitat. Are those dealt with through one model
2 or two models?

3 MR. PATCH: A. First of all, thank you
4 for the honorary degree, but...

5 The development of objectives for
6 white-tailed deer wintering area habitat was based on
7 an understanding of deer habitat needs. In a sense
8 that's is a separate model of understanding what your
9 deer population objectives are and different wildlife
10 management zones and making an effort to translate that
11 into how much habitat you need. That process was
12 specific for white-tailed deer understanding their
13 needs.

14 Q. So is there a computerized model then
15 that deals with that and projects what you think you're
16 going to have as a result of your activities on the
17 ground now and what you're going to project happening
18 over 25 years?

19 A. What we have, and model can be a
20 conceptual word--

21 Q. Right.

22 A. --we have -- we don't have one model,
23 one program that you plug in to get this, but what we
24 have is what we call a habitat supply analysis process
25 that, in part, uses an understanding of habitat

1 objectives for deer based on an understanding of their
2 biology, and then what we use is a combination of tools
3 of the geographic information system and the FORMAN
4 model, which is a forest growth model, to look at those
5 particular forest classes or forest types that
6 presently, or in the future, could provide deer habitat
7 to contribute towards meeting their objective. And so
8 that's a separate model. And then we can relate that
9 back for a period on our actual maps, on our GIS.

10 So we have a process of habitat supply
11 analysis, we don't have one all-inclusive model, but we
12 use separate ones.

13 Q. All right. So when you say you look
14 at the information from your FORMAN model and then you
15 use the GIS when you're dealing with the white-tailed
16 deer, is that model computerized, the one that...

17 A. The one to set objectives as far as
18 numbers of deer, we use similar population models. In
19 terms of understanding our populations, we turn to
20 Ontario to a selective antlerless deer system and we've
21 got expertise from there to help us with population
22 management.

23 That's one aspect of population modeling
24 that we use to look at our populations and harvestings
25 are mentioned in terms of antlerless permits and so on

1 and a look at population structure.

2 MR. MARTEL: What was that you borrowed
3 from Ontario?

4 MR. PATCH: A system for population
5 management for selective harvest.

6 MR. MARTEL: Okay.

7 MR. FREIDIN: Q. Now, you did use the
8 word that you have separate models. You used the
9 words, and I understand that you have a separate model
10 and it's sort of computerized for white-tailed deer and
11 a separate model that's computerized that allows you to
12 deal with the marten issue.

13 MR. PATCH: A. Well, if we're going to
14 change to the marten issues--

15 Q. Let's stop. Do you have a
16 computerized model that allows you to deal with the
17 white-tailed deer issue?

18 A. You'd have to define specifically
19 what issue, the issue of habitat supply analysis, do we
20 have one all encompassing model that takes us from
21 start to finish. Well, conceptually we do have a model
22 in our minds about how the world works, but we use
23 separate computer tools--

24 Q. All right.

25 A. --to arrive at defining habitat

1 objectives and assessing whether we're going to meet
2 those objectives over time.

3 Q. Am I correct that one of the
4 computerized tools you use is FORMAN, which is your
5 wood supply model. That's one of them?

6 A. That's correct.

7 Q. The GIS is computerized?

8 A. That's correct.

9 Q. Is there another computerized gizmo
10 that gets used when you're dealing with providing deer
11 habitat?

12 A. I'm a little lost on gizmo,
13 computerized gizmo. We do have a forest resource
14 information automated and computerized. It wouldn't
15 have to be to be able to do the analysis we do where we
16 can digitize the boundaries of deer wintering areas and
17 tell the computer: Summarize very quickly the amount
18 of area and different forest types that are in the
19 areas that are occupied by deer, describe their stand
20 condition, use that to plug into the FORMAN model that
21 will project how those stands change over time. You
22 can do that in the absence of our computerized gizmo,
23 only you would be much less efficient.

24 As far as the actual habitat supply
25 analysis process, the overall model, if you will, our

1 population biologists have looked at what they think
2 should be population objectives in different wildlife
3 management zones, they've looked at how much is in the
4 proportion of wildlife management zones and Crown
5 timber licences and made a conversion: Well, how much
6 habitat should be provided or how much should the Crown
7 timber licence contribute to the overall objective of
8 habitat in a particular wildlife management zone to
9 meet a population objective there.

10 Our definition of population size and
11 models we use in population management, that's treated
12 as a separate process, but that gets us to where --
13 defining what we want.

14 The other information we use includes the
15 geographic information system in terms of our forest
16 resource information handling, and the FORMAN model,
17 and that's it.

18 Q. Thank you. Dr. Page, could you turn
19 to the witness statement, Exhibit 2097, please.

20 DR. PAGE: A. What page is that, please?

21 Q. 2097. Page 4, Tab 17 -- I'm sorry.
22 Do you have that?

23 A. Yes, I do.

24 Q. This is the report on Integrated
25 Wildlife Intensive Forestry Research, and you spoke

1 about the authors and your involvement in this. On
2 page 4, or starting on page 3 actually, the second full
3 paragraph it says:

4 "The following case example illustrates
5 the current problems of planning for
6 integrated management of ungulates and
7 timber in coastal British Columbia."

8 And then you go on and you describe a
9 specific project or exercise described as the Artlish
10 Exercise and we see that down a few lines from the
11 bottom on page 3.

12 The second major difficulty that you
13 describe in this document was that it was difficult,
14 and I'm looking now on page 4, the second full
15 paragraph, you say:

16 "Second, it was difficult (and mostly
17 impossible) to schedule and project
18 forest management over a 20-year period
19 while simultaneously evaluating
20 forestry's impact on habitat values -
21 particularly since habitat values rely
22 partially on the spatial arrangement of
23 particular features...", et cetera.

24 Can you just expand on the difficulty
25 which -- well, just hold on a second, please. Where

1 was this Artlish exercise?

2 A. On the northwest side of Vancouver
3 Island.

4 Q. And was the HAP model used in that
5 exercise?

6 A. No, it wasn't. As a matter of fact,
7 the reason that example was in there, it was the
8 inability without any kind of habitat supply analysis
9 to evaluate what they were intending to evaluate was
10 the main impetus for this program being successful.

11 Until that time we were developing this
12 proof of concept and not being able to generate much
13 interest until we had been able to demonstrate the need
14 and that Artlish exercise was forced upon the agency
15 because they weren't able to come to agreement and the
16 paper exercises we generated into a long time
17 wasting -- a long waste of time.

18 Q. Dr. Page, do you have this document?
19 I don't have the exhibit number, the attachments to the
20 answers to the interrogatories, exhibit...

21 MADAM CHAIR: 2099B, C or D, Mr. Freidin.
22 Which one is that?

23 MR. FREIDIN: It's 2099. I don't know.
24 I guess, did we number the pages consecutively or...

25 Q. What I want you to do is to turn to

1 page 19.

2 DR. PAGE: A. And there were two which
3 you're referring to now. One was titled Habitat Supply
4 Analysis and Modeling, the other was Wildlife Habitat
5 Management Strategy.

6 Q. Yes. I want you to turn to the one
7 which was called Habitat Supply Analysis and Modeling,
8 that was the first one.

9 A. All right.

10 Q. 2099E, I think.

11 MADAM CHAIR: I think it only went up to
12 D, Mr. Freidin.

13 MR. FREIDIN: All right.

14 MADAM CHAIR: I don't have a page 19 on
15 anything. Oh, wait a minute, yes I do.

16 In the middle of the page is there a
17 subcategory 3.3.2?

18 MR. FREIDIN: I've got it.

19 MADAM CHAIR: General model description,
20 is that the page?

21 MR. FREIDIN: Yes.

22 DR. PAGE: That page is missing from the
23 material I was given as well. I have it now.

24 MR. FREIDIN: Q. Okay. This is part of
25 the report prepared by ESSA which was included with the

1 interrogatories and you were asked whether there were
2 any inaccuracies in it and I believe you indicated that
3 it was factually correct?

4 DR. PAGE: A. That's correct.

5 Q. Under the heading general model
6 description, and I think you would agree we're talking
7 here about the black-tailed deer model?

8 A. Yes.

9 Q. It describes at the beginning of that
10 paragraph a number of particular matters that were
11 looked at, cover quality, conditions for forage, cover
12 and that sort of thing. In the middle of the paragraph
13 it says:

14 "These last two variables are very
15 important to deer in British Columbia
16 given the differences between the
17 physiognomy of the older stands that are
18 used for winter cover and that of the
19 recently cut-over areas that frequently
20 are adjacent to the older stands.

21 Because of the importance of these
22 variables, the biologists in British
23 Columbia recognize the necessity of
24 linking the model to a GIS. This level
25 of complexity has added significantly to

1 the time required to develop the model
2 that we viewed as essential to producing
3 a useful tool."

4 Do you still agree with that comment?

5 A. Yes, we were able to develop
6 non-spatial HSAs in hand.

7 Q. Do you agree that -- this seems to
8 say that the biologists in British Columbia said it was
9 essential to link it to GIS to produce a useful tool.

10 What I interpreted it to be saying, the
11 biologists felt that without linking it to GIS it would
12 not be a useful tool. That's what it seems to say to
13 me.

14 A. The specific reason, as it states
15 clearly, is the nature of the stands, the sizes of --
16 despite the appearance of that overhead that I had,
17 this makes it difficult to appreciate the scale.

18 Cut block sizes in British Columbia are
19 generally quite large, much, much larger than an animal
20 such as a deer or a moose is able to walk across.

21 So, in other words, it was important to
22 know how much area of edge there was and where the
23 stands that still retained habitat were in relationship
24 to other stands, partially because of the size of
25 patches.

1 Dr. Thomas' Blue Mountain book identified
2 another method of dealing with that of patch sizes
3 generally smaller.

4 Q. Is that situation any different in
5 Ontario. Is the factor which caused the biologists in
6 British Columbia to say it was essential to have a GIS
7 to produce a useful tool, do those factors exist in
8 Ontario, or do you know?

9 A. In some cases they do. I said it
10 depends on the stands, it depends on the forest
11 management plans that have been imposed. It's not a
12 characteristic that's general.

13 Q. Okay. It would depend on --

14 A. An artifact of history.

15 Q. All right, thank you.

16 A. HSA can be applied without GIS.

17 Q. You said that a number of times.

18 Thank you. The next paragraph it says:

19 "Research and validation activities
20 directed at model development have
21 been done on southern Vancouver Island,
22 however, the general structure of the
23 model is considered robust enough that
24 given the appropriate georeference data
25 it is not limited in application to the

1 test area."

2 Is the reference to appropriate
3 georeference data a reference to GIS?

4 A. Not being the author, I'm having a
5 hard time figuring out what they're saying here.

6 Q. But you agreed that it was factually
7 correct. I guess maybe you didn't look at that
8 particular wording that closely. So do it now, please.

9 A. As I said, this page was missing from
10 what was sent to me.

11 Well, I believe that all they're
12 referring to is the general structure of the model
13 which was in my presentation. If I'm not
14 misinterpreting, what they are saying, that -- I think
15 this is what this is referring to, that the general
16 concepts of animals requiring, for example, food and
17 cover and being able to move between them can be
18 applied to other areas.

19 Q. Okay, thank you. Now, I just want to
20 clarify. Am I correct that HSA is not mandated as a
21 management tool in British Columbia for plan
22 preparation purposes?

23 A. There is no law. Most of our
24 management is by policy.

25 Q. All right. Am I correct that there

1 is no policy in British Columbia that HSA be used as a
2 management tool for plan preparation?

3 A. I will quote:

4 "To implement this mandate, the Ministry
5 has made a corporate commitment to --"

6 Q. What are you reading from?

7 A. This just happens to be the annual
8 report, last report of Ministry of Forests which -- the
9 policy manual is, as I stated before, many, many pages.
10 The annual report is an attempt to give roughly an
11 overview of the kind of policy changes and policy
12 initiatives the Ministry has undertaken.

13 MR. PATCH: A. That would be the report
14 submitted to the House?

15 DR PAGE: A. Yes, and to the public.
16 This is just submitted to the Lieutenant Governor.

17 Q. All right. Read to me what you wish
18 from that passage, please.

19 A. "The Ministry must undertake
20 Integrated resource management.
21 Integrated resource management is a
22 process which identifies and considers
23 all resource values."

24 And the Act itself states:

25 "Those resource values are not limited to

1 but must include wildlife as well as
2 recreation and range resources."

3 So similarly we've not had a particular
4 tool mandated, but we have the need to evaluate those
5 objectives specifically mandated.

6 Q. So the answer to my question is, yes;
7 that is, that there is no policy in British Columbia
8 that mandates the use of HSA in the preparation of
9 timber management plans?

10 A. This is a discussion that Mr. Patch
11 had yesterday. We believe --

12 Q. Don't tell me what you believe, tell
13 me whether there is a policy. I'm asking a very simple
14 question. Is there a policy which mandates the use of
15 HSA for the preparation of timber management plans or
16 not?

17 MR. O'LEARY: With respect, Madam Chair,
18 he was about to answer the question and he started with
19 different words than Mr. Freidin would like to hear.
20 Again, as we've discussed previously, it's not an
21 appropriate way to interrupt a witness.

22 MADAM CHAIR: Can you answer that
23 question with a yes or a no, Dr. Page?

24 DR. PAGE: I answered yes.

25 MR. FREIDIN: Q. Yes, there is a policy?

1 DR. PAGE: A. There is a policy.

2 Q. That HSA must be used for the
3 preparation of timber management plans?

4 A. As I was about to make clear, we
5 believe this -- HSA is a concept, not a specific
6 computer model that we must evaluate habitat supply in
7 relationship to timber and that I believe, and so does
8 Dr. Patch in New Brunswick, Mr. Patch -- must be the
9 water.

10 But these kinds of policies require a
11 habitat supply analysis in order for those policies to
12 be met, and that is generally agreed upon in British
13 Columbia.

14 MADAM CHAIR: Excuse me. But in 1992
15 licence holders in British Columbia are required to do
16 HSA in the preparation of their timber management
17 plans?

18 DR. PAGE: No, the actual planning
19 process in British Columbia, the so-called referral
20 process, is ineffective. We've all agreed that, in our
21 province we're changing it.

22 The way these -- the way it's applied
23 ends up being separated, so what happens is that the
24 timber management planner is required to formulate a
25 timber management plan potentially without HSA, comes

1 to the Ministry of Forests, goes to the Ministry of
2 Environment, and there the HSA is implemented. The
3 information from that feeds back to the timber
4 management planner and the plan is reprepared.

5 That's an inadequate and poor process and
6 in consequence the timber companies also want to have
7 HSA available to them so they can incorporate that
8 initially in their planning process instead of having
9 to go through this iterative bureaucratic step.

10 MR. THOMSON: I think I can clarify the
11 confusion because I was a little confused to begin with
12 myself.

13 MR. FREIDIN: Well, I'm just wondering
14 whether you can deal with the confusion that I'm having
15 and that's just dealing right now with what's going on
16 in British Columbia.

17 DR. THOMAS: I'd like to try.

18 MR. FREIDIN: All right.

19 DR. THOMAS: May I, please?

20 MADAM CHAIR: Go ahead, Dr. Thomas.

21 DR. THOMAS: Thank you. HSA is two
22 things and we're intermixing the words. One is a
23 requirement to be able to view into the future, the
24 other is a very specific model or something that's used
25 to do that.

1 I don't think there's any confusion at
2 all that we are required, if we are going to manage
3 intelligently forests in this joint products, to be
4 able to look into the future of how we intend to do
5 that. That is what HSA means in the conceptual model,
6 in the conceptual sense.

7 Specifically, no, I don't know of any law
8 in Canada or the United States either that specifies
9 precisely the technique that would be used to forecast.

10 MR. FREIDIN: Q. Now, Dr. Page, the
11 integrated resource management portion that you read
12 there, seems to me it says, in effect, consider
13 wildlife when you are preparing timber management
14 plans; isn't that right?

15 DR. PAGE: A. Yes. That part was from
16 the Act, yes.

17 Q. Right. Now, one might consider that,
18 perhaps not sufficiently in your view, if one prepared
19 guidelines, that would be a manifestation of the
20 consideration of the principle of integrated resource
21 management. Would you agree with that?

22 A. Only if they worked. The tool is
23 clearly not relevant to the mandate. As it says --

24 Q. Integrated -- whoa, whoa. You're
25 saying --

1 A. The mandate does not say whether to
2 use guidelines or any other method, the mandate says
3 you have to achieve this objective of supplying
4 habitat. If guidelines are totally effective --

5 Q. Wait a minute. Where does it say,
6 where does it refer to habitat there again. Read that
7 statement to me again, please?

8 A. Oh, that particular -- there's a
9 couple of pages here, but I tried to just highlight.
10 The important components are that these other resource
11 values must be included. Clearly the impact of timber
12 management is on the habitat. That's the component of
13 wildlife that we manage for is habitat, not
14 populations, that's the mandate of the Ministry of
15 Environment.

16 Q. All right. And I guess we've agreed
17 that there are a whole host of ways of going about
18 dealing with a concern about habitat?

19 A. Potentially.

20 Q. All right. Some of which are better
21 in your view than others perhaps?

22 A. The proof is in the pudding.

23 Q. Right. Okay. The pudding is still
24 cooking.

25 A. Yes.

1 Q. All right. Now, in the witness
2 statement, again Tab No. 17, at page No. 22, do you
3 have that?

4 A. Tab No. 17, page which?

5 Q. Page 22.

6 A. Page 22. All right.

7 Q. Is the heading Working Plan and it
8 starts off, it says:

9 "The process of developing and
10 implementing the HAP tool will be
11 driven by a number of factors described
12 below."

13 And No. 2 it refers to a number of other
14 research projects currently underway, describes some of
15 them, and it says in the last three lines of Item 2:

16 "It is, therefore, reasonable to schedule
17 the development and implementation of the
18 project to coincide with the completion
19 of these other activities."

20 Is that something which is common in
21 resource management that you're aware of, that the
22 scheduling of the implementation or development of one
23 approach in fact is -- the pace is affected by other
24 projects which are also ongoing?

25 A. You asked me is that common?

1 Q. Yes.

2 A. I would have no way of knowing.

3 Q. Do you agree with that statement in
4 that particular case that it is reasonable to schedule
5 the development and implementation of the HAP project
6 to coincide with the completion of other research
7 activities?

8 A. I think if you understand the reason
9 why the scheduling occurred it would be very clear that
10 all these activities were not just academic research in
11 isolation, they were all intended to improve the
12 ability of managers to manage forests to produce
13 wildlife habitat.

14 Those research activities, plus the
15 development of our own tool needed to be implemented.
16 Without that research, it was a failure. So we
17 developed workshop methodologies, we hired trainers to
18 train people, staff in the knowledge that we were
19 acquiring.

20 So just as a matter of convenience and to
21 avoid confusion it was much more appropriate, rather
22 than completing one project a year earlier
23 potentially - since some of these, as I stated earlier,
24 were 10-year long issues, research projects - they were
25 timed to be completed relatively simultaneously so that

1 a single series of large workshops could be undertaken
2 to train the staff in the new knowledge that was
3 gained.

4 Q. All right.

5 A. HAP just happened to fit into that
6 process.

7 Q. And whether it would be reasonable to
8 follow a similar approach in any jurisdiction would
9 depend on the particular circumstances in that
10 jurisdiction, including the types of research and
11 initiatives which were underway. Would you agree with
12 that?

13 A. This is strictly a scheduling matter,
14 as it clearly states.

15 Q. It was a scheduling matter, but
16 similar scheduling matters could exist in other
17 jurisdictions?

18 A. Yes.

19 Q. And whether it was reasonable for
20 those -- and the reasonable way to deal with those
21 scheduling matters would only be determined by
22 understanding the particulars of the various different
23 initiatives which were ongoing?

24 A. That would be appropriate.

25 MR. PATCH: A. I think there's a

1 distinction though between the stage of research
2 initiatives and the stage of what tools are available
3 in a particular jurisdiction to implement something,
4 and research is there to answer questions and reduce
5 uncertainty to better define relationships.

6 A more relevant factor to me with respect
7 to transferability would be the base information that's
8 available in a management sense that could be applied
9 and not necessarily totally predicated on where a
10 research program is, because you always start with your
11 best information and then you try and define that.

12 Q. Well, all right. You focussed in on
13 this whole issue of research and then you've introduced
14 the issue of transferability, which I really wasn't
15 necessarily getting at.

16 But, I mean, are you saying that
17 something can just be transferred because it seems to
18 work somewhere else and let's use it because you can
19 modify it, and we should do that quite irrespective of
20 any consideration of what else is going on in the other
21 jurisdiction?

22 DR. THOMAS: A. Absolutely not, but one
23 cannot also infinitely delay waiting for completion of
24 ongoing projects and one should be very conscious of
25 the fact that ongoing procedures, without using best

1 information available, will lead you to the elimination
2 or diminution of options.

3 Diminution of options, when you have to
4 face a problem later on, can be very, very difficult
5 and very expensive to do.

6 Q. And, Dr. Thomas, would you not agree
7 that the decision-makers in the particular jurisdiction
8 in question, based on their best understanding of the
9 situation in that jurisdiction, would be the people to
10 make the determination as to the scheduling, the rate
11 at which one must implement something?

12 A. If they appropriately consider the
13 situation, they are the people that are charged with
14 making the decisions. There is probably some
15 difference between here and the United States, but our
16 decision-makers have been caught short in court of
17 delaying decisions and implementations and addressing
18 problems that were required by law that they chose to
19 delay.

20 Q. All right.

21 A. And they were very expensive.

22 Q. And you're hopeful that that doesn't
23 happen in any jurisdiction?

24 A. I am hopeful that it happens in no
25 jurisdiction, yes.

1 DR. PAGE: A. Particularly, and as I
2 stated in the witness statement, in our case our
3 scheduling was relatively delayed, took a long period
4 of time. First of all, because we had no commitment in
5 the organization, we didn't have a process like this or
6 any other process to bring the technology to the
7 organization and provide a commitment to implement it,
8 we had to do it, as I stated repeatedly, in our spare
9 time, develop the concept, get people to understand
10 what we were talking about first.

11 Second of all, we had very little
12 resources, we had very little money, you know, total
13 budget over the entire program was roughly \$200,000.

14 And, third, is that it was a relatively
15 new thing at the time. As I stated, we could do it
16 over again now in less than two years, so could anyone
17 else.

18 MR. MARTEL: But are you aware that - at
19 least we've been advised - that the Ministry in fact is
20 working on this approach, they're attempting to
21 digitize, they told us they could throw more money at
22 it but, in fact, couldn't do it any faster than the
23 money they are now presently throwing at the process of
24 digitizing the GIS.

25 That in fact habitat supply modeling is

1 being considered, I think they said -- I think the
2 information we got a couple of years ago was they're,
3 what, two or three areas where it was being seriously
4 considered.

5 The perception one gets this week is that
6 we're in a state of inertia here. I'm not sure that's
7 quite factual. I just throw that in, because these
8 factors are going on. I'm not defending the Ministry,
9 I'm just asking if you're aware that these things are
10 happening, in light of the evidence you're giving.

11 MR. PATCH: We deal in a predictive world
12 and we were anticipating a discussion like this, so Dr.
13 Page and I last night, after Dr. Thomas' talk, went
14 back to the hotel room and did a habitat supply
15 analysis on the Red Lake Crown Management Unit area and
16 I could show you what we did and how we considered and
17 how the output was there to look at, given the strategy
18 as outlined in that particular plan, what the future
19 forest structure would be like in a particular
20 vegetative community, spruce type.

21 So in terms of a background in that area,
22 if you want me to proceed, I can.

23 MADAM CHAIR: One moment, Mr. Patch.

24 Mr. Freidin, we can hear what Mr. Patch
25 has to say about that but, look it, are you going to

1 get to the point in the cross-examination this morning,
2 have you put the documents to these witnesses with
3 respect to the latest information that was made an
4 exhibit at the hearing on the ecological land
5 classification, the research that MNR is moving into
6 with respect to looking for tools that may or may not
7 include HSA?

8 MR. FREIDIN: No, no. I'd be here
9 forever if I had to put our whole case to them and all
10 the evidence we're going to lead in rely about HSA and
11 what's going on to get their opinion. So I'm not going
12 to do that, I don't think that's appropriate.

13 In relation to what Mr. Patch has
14 proposed, if the Board feels that they want to hear
15 that evidence, that's fine.

16 If you want to hear it, I would rather
17 hear it while I still have an opportunity to
18 cross-examine. So I leave that it up to you.

19 I don't particularly -- I don't think I
20 particularly need to have that information, but if the
21 Board thinks it would be useful --

22 MR. MARTEL: I think what was worrying me
23 is that, I've heard the Ministry, I'm hearing clearly
24 the direction that I think everybody is saying, I'm not
25 sure they're saying you've got to adopt it in Ontario,

1 but that you should look at it seriously, you should
2 consider it seriously as a tool, and I'm just not sure
3 where we're going to go.

4 I mean, I looked up when it said that
5 this could be adopted in Ontario in two years, I think
6 somewhere in your evidence, Doctor.

7 DR. PAGE: Yes.

8 MR. MARTEL: And I scratch my head
9 because we're talking about an area that's about 1,200
10 miles long by, I don't know, how many miles wide. It's
11 huge.

12 I have to ask myself, we can't stand
13 still. I mean, that's why we're in this process. The
14 public was fed up, and so were other people, I mean,
15 that we had to change and we had to move and we had to
16 protect all that's there.

17 I mean, I think that this has been an
18 interesting and I think useful panel from that
19 perspective, but to get into prove what/prove not,
20 mines better than yours, when to simply make a
21 statement: You can take this and apply it there, in
22 face of all of what's happening in Ontario at the
23 present time, it's difficult to vision that somebody
24 says: Take this and apply it there.

25 I'm not saying the principles, but I

1 think we're moving in that direction, at least the
2 evidence I've heard. Yes, Dr. Thomas?

3 DR. THOMAS: Just to make a point. This
4 is placed forward as being incredibly difficult,
5 onerous, burdensome, incredibly expensive and all
6 that's not true.

7 They sat down last night with a hand
8 calculator and did an HSA projection on martens on the
9 data that was presented in the timber management plan
10 in two hours with a hand calculator. That's not
11 difficult. It uses the same databases.

12 This is being presented as something that
13 it is not, and I cannot believe that any wildlife
14 biologist or any agency in the 1980s is not projecting
15 some future desired condition using whatever means are
16 at their disposal. That's called habitat supply
17 analysis.

18 This doesn't require rocket science, they
19 did one last night on a rather large area with a hand
20 calculator in two hours.

21 MADAM CHAIR: I think what we'll do, Mr.
22 Freidin, at this point, we will listen to a very brief
23 presentation by Mr. Patch and Dr. Page with respect to
24 the habitat supply analysis exercise they did on the
25 Red Lake Crown Management FMU.

1 DR. PAGE: I will put up the overhead I
2 have here that I can use.

3 MR. PATCH: That Red Lake Crown
4 Management Unit, we didn't do an overall habitat supply
5 analysis, I don't want to overstate what we did.

6 That particular area has a number of
7 different dominant vegetative types in terms of
8 habitat, it's including spruce forest divided into
9 productive spruce and less productive spruce.
10 Basically the spruce forest component in that Crown
11 land management unit area is about 50 per cent of the
12 productive forested area.

13 What we did was to look at the model
14 outputs that were done based on the forest growth
15 analysis that was done looking at a combination of
16 area/volume regulation and I'm sure you've heard
17 discussion before about area/volume regulation.

18 MADAM CHAIR: Yes, we have.

19 MR. PATCH: There was a MAD calc run and
20 there was a FORMAN run, two separate projections of
21 yield and area harvested over time. So we did a very
22 rudimentary non-spatial analysis keying in on the
23 productive spruce type which is the dominant vegetative
24 community in that particular Crown management unit,
25 represents about 35 per cent of the productive forested

1 area, is in this vegetative type of community at
2 different age-classes.

3 So what we did, and this is a very simple
4 basic look at -- this represents what we call an
5 age-class distribution, the per cent of area in
6 different age-classes. So how much area is in the 0-20
7 years old, the early successional stages in the
8 productive spruce stands, those vegetative communities
9 on the Red Lake Crown Management Unit.

10 And this shows an age-class distribution
11 with about 40 per cent of the area being in the early
12 successional stages. A lot of that is a result of a
13 fire history in the 1980s in that particular area, so
14 there is a lot of young area. Not all of that is free
15 to grow, some of that area is in areas that will be
16 delayed in terms of their development because of their
17 category, barren and scattered I think is the
18 terminology, and then there are various amounts of
19 areas that are 20-40 years old or 40-60 years old and
20 so on.

21 Now, not to imply that this is
22 necessarily the relationship that one would assume in
23 this area in Ontario, you would have to make anything
24 like this specific to your understanding of the local
25 vegetative communities and wildlife.

1 What is cross-hatched out here represents
2 what in New Brunswick we would call the mature
3 coniferous forest habitat. So - I need a pointer -
4 these particular age-classes represent the older
5 age-classes within the productive spruce forest that
6 are across that particular Crown management unit that
7 would supply habitat for marten in our definition of
8 what marten need.

9 That does not necessarily mean it would
10 be precisely this here in Ontario. But this still is a
11 description of habitat, it's a description of the
12 amount of area in different successional stages, in
13 different stages of development in a particular
14 vegetative community.

15 Now, we did two separate analyses where
16 we - and I don't have to go through both because the
17 results are very similar - one based on the FORMAN run,
18 so the projection through the FORMAN model through the
19 application of a cutting strategy in time, what would
20 the future forest look like, and then we also did a
21 look at the future age-class distribution with the MAD
22 calc run.

23 This shows that giving the planned
24 cutting rate, so the schedule of timber harvesting
25 activities in that particular vegetative type through

1 time on that Crown management unit, what would the
2 future age-class distribution of that forest look like
3 in terms of proportion of area in different development
4 stages.

5 And given that the strategy is largely in
6 that particular unit to try and cut the oldest first
7 stands at 60 years, if that plan is implemented in
8 accordance to the models for timber supply planning,
9 this is the future age-class structure, and you can see
10 there's sort of this large slug of proportion of area.
11 This really represents areas that were cut that were
12 out here that have grown back, and also those areas
13 that are slowly regenerating from the past burns that
14 happened there. So 60 years down the future they'll be
15 40-60 year old stands or the equivalent when the
16 vegetation comes in and they grow.

17 What this shows that if this plan is
18 implemented in accordance with how it's modeled, that
19 there's a difference in the forest structure, in the
20 habitat supply on that Crown management unit.

21 Now, if we assume that some species'
22 needs 60-year-old or greater stands that have the
23 structural characteristics to provide their habitat
24 needs, then we could predict if you're moving from here
25 to here that you would expect a downward trend or

1 response of that wildlife species. So the change in
2 the availability of habitat.

3 And so we did - purely applied, like, the
4 graph I showed about what as suitable habitat in New
5 Brunswick, applied it to the area that could be
6 providing habitat and we came out with that projection.

7 MR. FREIDIN: Q. Can you just move that
8 side up, please. What's at the bottom?

9 A. Years into the future.

10 Q. Okay, thanks.

11 A. So this in this case was a relative
12 index of a number of animals, we quantified it, but you
13 could say it's also a relative index of the number of
14 animals, if they were -- if the number was directly
15 proportional to the amount of area available to them, a
16 species that relied on the cross-hatched area would
17 have a habitat supply problem.

18 Since you have this big slug of area in
19 the 40-60 year old age-class there will be a response
20 in the availability of habitat beyond year 60; in other
21 words, this will grow out to here, it won't all be cut.

22 But it does show potentially that for
23 some species in that area, if the plan is applied
24 specifically as laid out, there may be a period some
25 time in the future where one might be concerned about

1 the habitat supply for species that depend on that
2 60-year-old or older productive black spruce forest.
3 And that was based on the MAD calc.

4 Based on the FORMAN, very similar.
5 There's differences, slight differences in numbers, but
6 it shows the same trend depending on whether the
7 strategy is pure volume regulation in that particular
8 area or an area/volume combination. I'm still a little
9 confused by that, I shouldn't be but I am.

10 Q. I'm sorry, what is this?

11 A. This is a FORMAN run based on the
12 output that's in the Red Lake Crown Management Unit.

13 Q. The first one was based on the
14 OWOSFOP run?

15 A. Yes, it said MAD calc something --

16 Q. Yes.

17 A. I assume it's OWOSFOP.

18 Q. Okay.

19 A. Now, this is not to say that you're
20 going run around and change your whole management
21 strategy. I'm just saying, the tools are there and
22 being used for timber supply that project the amount of
23 area in different vegetative types through the future
24 given your projected cutting rates that you can start
25 making inferences about what that will mean in terms of

1 wildlife species. It's a habitat supply.

2 Now, that's at it's very basic level.

3 These are the types of analyses that we were starting
4 initially 10 years ago, but the tools are there to do
5 some habitat supply analysis to lead you to make some
6 conclusions: Do I have risks or do I have concerns
7 about how I'm managing and what my future forest will
8 look like.

9 DR. PAGE: A. There's two points I would
10 like to make. First of all, that this area, according
11 to the plan - and we believe it to be true - they have
12 applied the moose and caribou guidelines. This area,
13 this plan has taken that information into account and
14 has been appropriately applied, applied presumably as
15 well as the Ministry can since this plan was chosen by
16 them to demonstrate the feasibility of their
17 methodology.

18 The second point is that regardless of
19 the precision of these models, in the case of this
20 particular analysis, the impact is clear, 60 years from
21 now it's highly unlikely there would be any marten in
22 that area because of the young age of the forest, and
23 as we've said, this isn't rocket science, many of the
24 things are very straightforward and simply, can be done
25 easily and given the mandates that we operate in our

1 two governments --

2 Q. That's B.C. and --

3 A. And New Brunswick, we believe that
4 results like this aren't difficult to justify.

5 MR. PATCH: A. We may have sat and
6 looked at an output that was already generated and done
7 that in a couple of hours or less, but the point is
8 that there was years and years of work going into
9 forest inventory, into characterizing the forest and
10 modeling that. This was not an exercise that couldn't
11 have been done without a volume of information and so
12 on, so...

13 But it's a matter of an example of using
14 what you've got, projecting into the future, and making
15 inference about: If I do this, what does the future
16 look like, what are the potential consequences in terms
17 of providing habitat to meet certain species.

18 MR. FREIDIN: I think we should make the
19 overheads that you referred to an exhibit.

20 MADAM CHAIR: Yes. There are two
21 overheads.

22 MR. FREIDIN: Well, do you want to mark
23 both of them?

24 MADAM CHAIR: Yes. One was for the MAD
25 calculation and one was for the FORMAN; one was for the

1 volume, one was for the area calculation.

2 - MR. PATCH: (nodding affirmatively)

3 MADAM CHAIR: Why don't we make them A
4 and B. These will be Exhibit 2109A, which was the
5 first one, MAD OWOSFOP area calculation, and Exhibit
6 2109B will be the FORMAN volume calculation. And what
7 title shall we give these, Mr. Patch?

8 DR. PAGE: Marten habitat supply for Red
9 Lake timber management plan.

10 ---EXHIBIT NO. 2109A: Marten habitat supply for Red
11 Lake Timber Management Plan
12 as depicted through MAD OWOSFOP
area calculation prepared by
Messrs. Page and Patch.

13 ---EXHIBIT NO. 2109B: Marten habitat supply for Red
14 Lake Timber Management Plan
15 as depicted through FORMAN
volume calculation prepared by
Messr. Page and Patch.

16 DR. PAGE: The stuff that this came from,
17 I'm not sure if it should go with that, but there is a
18 projection of age-class structure through the forest
19 through time, the amount of hectares in the different
20 20-year age-class groups at time through the future
21 given a certain -- that's the data that went into that.
22 I'm just wondering whether it would be appropriate to
23 have that --

24 MR. FREIDIN: That's an excerpt from the
25 Red Lake Plan?

1 DR. PAGE: Yes.

2 MR. FREIDIN: Sure.

3 MADAM CHAIR: All right.

4 MR. O'LEARY: Madam Chair, perhaps we
5 could offer to submit the whole plan as an exhibit at
6 this point. I know you were going to enter it in
7 evidence at some pont, as I understand matters.

8 MADAM CHAIR: Well, I think it would be
9 just as simple at this point, if there's a one-page
10 excerpt upon which you relied as background data to
11 produce these materials, then why don't we just give
12 that an exhibit number so we can keep it together and
13 that will be 2109C. And which page is that out of the
14 1992 Red Lake --

15 MR. FREIDIN: Volume 1, I think.

16 DR. PAGE: They aren't paginated, but...

17 MR. PATCH: It's Appendix F, page 5 of
18 the--

19 MADAM CHAIR: Appendix --

20 MR. PATCH: --plan, that's for the FORMAN
21 run. For the MAD calc it's Appendix G, page 3.

22 MADAM CHAIR: Thank you very much.

23 All right. Those two pages will be
24 Exhibit 2109C.

25

1 ---EXHIBIT NO. 2109C: Two-page excerpt consisting of
2 Appendix F, page 5, and Appendix
3 G, page 3, from Red Lake Crown
 Management Unit Timber Management
 Plan, 1992-1997.

4 DR. PAGE: The important reason that we
5 were able to undertake that analyses is that a large
6 area of the undertaking is the boreal forest. It's the
7 single largest ecosystem unit in Canada, the same
8 ecological unit goes all the way from Yukon right
9 across the country to Newfoundland. It's essentially a
10 very similar unit. It's the simplest forested
11 structure in the entire of North America.

12 The coastal forests that I was developing
13 the HAP tool to are among the most complicated, and
14 that's the major reason why we had the difficulties we
15 did. That component of it does not apply to the area
16 of the undertaking, the boreal forest is simple.

17 Secondarily --

18 MR. FREIDIN: Q. Management is simple
19 too, I suppose.

20 A. Pardon me?

21 Q. No, no.

22 A. Secondarily, the main -- one of the
23 main species of concern in the boreal forests and in
24 the area of the undertaking is the moose. It's one of
25 the best known, researched and written about animals in

1 the wild forests of the world. There's a huge body of
2 information to draw on already, and we have no doubts
3 that the expertise and talents exist in the Ministry
4 currently to undertake the kind of analyses that we
5 recommend. I mean currently, I don't mean years in the
6 future.

7 Q. I have to think about whether I have
8 any questions about that, but just one quick matter
9 before I move on. That particular projection of the
10 future was on a spatial projection, there was no
11 consideration of interspersions of stands; is that
12 right?

13 MR. PATCH: A. No.

14 Q. No there wasn't, or yes I'm correct?

15 A. You are correct in that that was a
16 non-spatial analysis which, in effect, makes the -- if
17 anything, there are spatial requirements, so an animal
18 needs cover maybe next to needing other needs.

19 A non-spatial analysis is, therefore, a
20 very optimistic one because it's assuming that
21 everything that's in a particular age-class is good
22 habitat whether it's small or whether it's large or
23 whether it's something else that's required.

24 If you have a habitat supply problem with
25 a non-spatial analysis, you can be assured that you

1 would have a much bigger problem if it was a spatial
2 analysis.

3 Q. Now, Dr. Page, when we got into this
4 we were talking about Tab 17.

5 DR. PAGE: A. Mm-hmm.

6 MR. FREIDIN: And by the way, my
7 projection of mid-morning has gone by the boards, Madam
8 Chair.

9 MR. MARTEL: By noon.

10 MR. FREIDIN: Maybe noon.

11 Q. Page 24, the second full paragraph
12 deals with the issue of training. It says:

13 "Training the line personnel in the use
14 of the tool will be a time-consuming
15 process."

16 We're back talking about your tool.

17 "It will require specialized skills to
18 create the user's manual and training
19 programs and to deliver the courses.

20 Extension of the tool also will require

21 the acquisition of computer

22 hardware/software for the line personnel.

23 Managers must be aware that the process
24 of extension and training will be time
25 consuming and costly."

1 And then you go on. That doesn't sound
2 to be like what your evidence in-chief was.

3 DR. PAGE: A. I'm glad you brought that
4 to the attention of the Board. That is a paragraph in
5 this document that I was concerned about. I didn't
6 personally believe it to be true, but we also didn't
7 want to oversell and, as I stated in my own evidence,
8 time has proven me correct and that paragraph
9 incorrect, that two years since this was written is
10 forever in technology and now it's four years actually
11 since that was authored.

12 The technology is easy to use, I believed
13 that at the time, we now know for certain. We have
14 staff that are coming on line with no other training
15 in-house that can use methods immediately, they're
16 getting that training in the school system now.

17 The staff that we have, whether they've
18 been trained in the use of GIS, are now computer
19 literate. We had to do three weeks of training so they
20 would know what a personal computer was three or four
21 years ago, now it's common in the office. This is just
22 another one of the potential tools that they can use
23 with relatively little training now.

24 Q. All right. So you disagree with that
25 for the reasons you've indicated. Then would you turn

1 to Exhibit 2099, page 19 of the ESSA report, based on
2 indices across the country, the one that's got page 19
3 at the bottom. I'm sorry, I don't know which...

4 MADAM CHAIR: Page 20, Mr. Freidin, the
5 last page.

6 MR. FREIDIN: It's got general model
7 description 3.3.2.

8 MADAM CHAIR: That was page 19.

9 MR. FREIDIN: Yeah, page 19.

10 MADAM CHAIR: That's the last page of --

11 DR. PAGE: All right, I have it.

12 MR. FREIDIN. Q. Now, just to give you
13 every opportunity to indicate your agreement or perhaps
14 your disagreement with what other views have been
15 expressed in this document, it says at the bottom:

16 "The model is complex and is not simple
17 to use. At present it is used only by
18 the scientists who developed it. It is
19 not clear who would be the users of this
20 or a similar model if it were to be
21 integrated into a revised planning
22 framework. The users would either be the
23 forest management companies and/or field
24 employees of the Ministry of Forests. In
25 either case, a considerable amount of

1 training and user friendliness
2 programming would be necessary."

3 Do you disagree with that too?

4 That was the observation of ESSA after going to British
5 Columbia and talking with the people there.

6 A. A year and a half ago, yes.

7 Q. All right.

8 A. As I said, that's a long time in
9 technology.

10 Q. All right. So that was true a year
11 and a half ago but it's all been addressed now and it's
12 no longer a true statement?

13 A. I would not have stated it as, I
14 would boldly as that, as baldly as that. The model may
15 be complex, but it is relatively simple to use.

16 Q. Okay. Did they speak to you when
17 they were out there?

18 A. Oh, yes. We had a day and a half
19 long tour. We hardly dealt with the model itself at
20 all, we were in the woods primarily. We visited the
21 sites and saw the systems.

22 Q. And did they speak to other people in
23 your department?

24 A. Marvin Ang, who was one of the
25 authors here, I believe was otherwise occupied. We had

1 a research branch wide meeting at the same time, so we
2 went there for supper so they could meet people but
3 they didn't have the opportunity to talk to very many
4 of the staff. They also visited Ministry of
5 Environment staff though that would be some of the end
6 users of this product, but at that time they hadn't
7 received it yet, and we managed to get in some bird
8 watching.

9 Q. Okay.

10 A. I do agree the final statement though
11 is valid:

12 "In either case, a considerable amount of
13 training and user friendliness
14 programming would be necessary."

15 And that has occurred with the passage of
16 time, user friendlieness has happened by the developers
17 of GIS. The training on PCs is occurring throughout
18 the world.

19 Q. Mr. Patch, will you turn to -- oh,
20 one matter before I do deal with that.

21 All right. I'm sorry. Would you turn to
22 the interrogatory responses, Exhibit 2099. Would you
23 turn to MNR Interrogatory No. 25, which I believe may
24 be at page 19 of the exhibit, we're looking at the top
25 righthand corner.

1 MR. PATCH: A. I've got page 17.

2 Q. Page 17. Yeah, that's it. You were
3 asked the question, or you state in your witness
4 statement:

5 "We learned that our current constraint
6 management methods did not deliver the
7 necessary habitat needed to meet the
8 population objectives."

9 And you were asked on what basis that
10 conclusion was founded. You say that:

11 "The conclusion was based on analysis and
12 judgment." and you referred to your paper
13 of 1987 which is attached.

14 A. Yes.

15 Q. All right. Your paper in fact is the
16 sort of things you've spoken on, the needs to make
17 predictions generally; is that correct? Well, let's
18 not ask you to repeat it. Would you turn to page 54--

19 A. 54.

20 Q. --of your article which is attached.
21 Is it attached to the exhibit?

22 MADAM CHAIR: Are you referring to
23 Exhibit 2099C?

24 MR. FREIDIN: Q. Let's see if we can
25 shorten this, Mr. Patch.

1 MR. PATCH: A. I haven't got the article
2 in front of me.

3 Q. Let's try and do it. Am I correct,
4 in the planning process in New Brunswick wildlife
5 biologists are not part of the planning framework, but
6 are part of the plan approval process only?

7 A. When that article was, or that paper
8 was presented in 1987 that was the case in that the
9 Crown timber licensees are responsible for submitting
10 the forest management plans. They then were turned
11 over to the Department of Natural Resources for the
12 department to review the plan as submitted and to pass
13 judgment on -- as to whether the plan was suitable or
14 not suitable.

15 And so that the companies, not having
16 wildlife biologists developing these plans and not
17 having specified objectives, amounts of forests to
18 manage for, and having only a constraint approach that
19 said you can't cut in these areas, or maybe you can, or
20 do these kind of things, the plans would come back from
21 the company to the biologists and be assessed with
22 respect to were the constraints met or not. And so the
23 biologists were part of the plan approval process but
24 not involved in plan development.

25 Q. And now, are they still involved

1 primarily in that plan approval process? The companies
2 are still preparing these plans on their own given the
3 direction that they have to provide a certain amount of
4 habitat?

5 A. The big difference is the setting of
6 objectives.

7 Q. Who sets the objectives -- the
8 objectives for habitat?

9 A. Yes.

10 Q. Who sets it?

11 A. It's set by the department and set by
12 policy direction but it starts with the biology and the
13 biologists sets the objectives.

14 Q. So you set the objectives, the amount
15 of habitat they need, you give that objective to the
16 company, you say: Prepare your plan, keeping in mind
17 that you have got that objective, then it comes back to
18 the biologists for the purposes of approving the plan?

19 A. Bingo. So the biologists are now
20 starting -- they're involved right in plan development
21 in that they are involved in setting the objectives
22 based on the needs of how much you think should be out
23 there in terms of mature coniferous forest habitat or
24 deer wintering area.

25 MR. MARTEL: Do they go out and ground

1 proof that at all, the biologists, do they go and look
2 at it, or are they doing it all from a computer?

3 MR. PATCH: No, there is lot of ground
4 work.

5 MR. MARTEL: They do ground work.
6 Because these are private -- I mean, the biologist is
7 working for the Ministry.

8 MR. PATCH: That's right.

9 MR. MARTEL: But these plans are prepared
10 by the company.

11 MR. PATCH: Correct.

12 MR. MARTEL: And I'm just trying to get
13 the linkage as to how, if the biologist goes on, say,
14 the property and ground proofs it --

15 MR. PATCH: It's Crown land.

16 MR. MARTEL: Yes.

17 MR. PATCH: So anybody can go on the
18 property. We supply to the licensees the forest
19 inventory and resources information, we define deer
20 habitat because the deer tell us where they stay
21 because we fly over watersheds and see where they're
22 wintering, we go down in those particular stands and we
23 measure what the stands look like in terms of their age
24 and what types they are. So we can start developing
25 our relationship, given the knowledge of where they are

1 and what they're using.

2 And the same goes with marten. We didn't
3 arbitrarily say, this is the area that marten use. We
4 base that on literature and knowledge and consultation
5 with experts across North America about what marten
6 habitat requirements were.

7 There's uncertainty, our best estimates
8 of how much habitat is needed to support how much
9 marten, and part of our process is a plan to go out and
10 sample these areas to see whether marten are indeed
11 using, as we predicted, the stand types that we think
12 they should be using.

13 And so this is a start of the process.
14 We use our best efforts, go out, look at the stand
15 condition, look at wildlife use, refine our
16 understanding; if we get a different understanding, go
17 from there.

18 MR. FREIDIN: Q. Okay.

19 DR. PAGE: A. And I think that's
20 important, that we want our Crown land to be managed by
21 foresters and biologists, not by computer programmers.
22 That's why we really need OCCAM's razor to shave off
23 the complexities of these computer models so that the
24 biologists and the foresters will be able to utilize
25 them.

1 Q. Dr. Thomas, what is your
2 understanding of the role of wildlife biologists in
3 timber management planning in Ontario?

4 DR. THOMAS: A. I have no firsthand
5 experience. I know you have wildlife biologists, I
6 assume they consult fully in the process of the
7 achievement of your objectives.

8 Q. Do you have -- you assume that. Do
9 you have any understanding as to how they go about that
10 consultation?

11 A. Not specifically.

12 Q. I'm sorry.

13 A. Not specifically. Those things are
14 fairly generic across the world, however.

15 Q. Well, you spoke in your evidence
16 about, you know, the animosity that perhaps was
17 generated in the United States between foresters and
18 biologists sort of historically and how that's
19 improved. I take it from your answer, sir, that you're
20 not in a position to indicate whether in fact that
21 animosity or acrimony exists in Ontario, having regard
22 to the planning process?

23 A. No. You might easily find out by
24 putting some of your biologists on the stand and ask if
25 they were ever seriously distressed.

1 Q. They've been on the stand.

2 A. Did you ask them that question?

3 Q. Yes, sir.

4 A. Good.

5 MR. PATCH: A. Just give an example.

6 This volume of material represents correspondence
7 mostly between the specialist in the fish and wildlife
8 branch and the timber branch with, in this case, the
9 planning forester who developed the plan for a
10 particular company.

11 So there's this interactive process plan
12 development that's going on now between the people
13 involved in the forest growth and the wildlife
14 understanding and how well they're getting along in
15 trying to meet the objectives that we have specified.
16 So it's quite an interactive process in plan
17 development.

18 Q. Dr. Thomas, could you turn to the
19 witness statement, please, which is Exhibit No. 2097,
20 page 123.

21 In answer 17 on that page you say in the
22 second paragraph:

23 "If the situation existed in the United
24 States where forest companies prepared
25 and were primarily responsible for

1 implementing timber management plans,
2 every individual timber management plan
3 project would be tied up in court. At
4 the present time the U.S. Forest Service
5 depends upon their staff to prepare and
6 oversee the implementation of timber
7 management plans. Even in those
8 circumstances, court challenges to
9 individual timber management projects are
10 all too frequent."

11 Do you have any understanding as to the
12 involvement of Ministry staff in the preparation of
13 plans which are, in fact, authored by or prepared by
14 companies that hold management agreements in Ontario?

15 DR. THOMAS: A. In Ontario specifically,
16 no, sir, I don't.

17 Q. Was it your understanding when you
18 prepared your evidence, or did you have any
19 understanding one way or the other, belief one way or
20 the other as to whether when a large company that has a
21 forest management agreement with the Ministry, with the
22 Crown, did you have any understanding as to whether in
23 fact Ministry staff were involved in the preparation of
24 that plan?

25 A. Specific to Ontario, no, I don't.

1 Q. Thank you. And if you could turn to
2 page 23. At page 23 you're dealing with the heading
3 timber management planning on U.S. private land and,
4 you indicate in question 37 -- you're asked:

5 "How do timber management planning
6 practices on private forest lands
7 differ from those on U.S. federal
8 forest?"

9 You said:

10 "Private land forest management is
11 necessarily structured on a constraint
12 management approach."

13 Then you say:

14 "On large tracts of private commercial
15 forest there is a single objective to
16 maximize wood production."

17 You also state that:

18 "State governments do not have the
19 authority to prescribe the levels of
20 non-timber values to be produced on
21 private forest lands."

22 And then you continue on:

23 "But the states do."

24 And then you say in the third last line:

25 "Based on my understanding of the Ontario

1 timber management planning process, it
2 most closely parallels the timber
3 management planning process used by
4 forest companies on private lands they
5 own."

6 Now, was that conclusion based in part on
7 your belief that on forest management units in Ontario
8 that they are large tracts of commercial forests where
9 there is a single objective?

10 A. No.

11 Q. Do you have any understanding as to
12 whether or not there are levels of non-timber values
13 prescribed to be produced on Crown lands other than
14 producing timber?

15 A. Yes.

16 Q. And so those two comparisons, those
17 two factors were not the basis on which you came to the
18 conclusion; in other words --

19 A. No, I was merely making the analogous
20 statement that very obviously your emphasis on your
21 land management is timber production, that's nothing
22 wrong with that, that's been true in our country as
23 well.

24 I'm merely saying that you are, from the
25 plans that I saw, are operating under constraint

1 management.

2 Q. Right.

3 A. And that is analogous to private
4 lands in the United States where there are
5 environmental concerns imposed on private landowners
6 and it's always done through a process of constraint.
7 I was merely saying those are analogous.

8 Q. Right. But on those areas of land,
9 on private lands in the United States where they're
10 imposed as constraints, I think you were saying that
11 there was a single objective for that land base and
12 that was to maximize wood production; is that right?

13 A. On private lands in the United
14 States, particularly on corporate lands, the usual
15 objective is to make money, and they make money I tell
16 you.

17 Q. And that was a single objective
18 and --

19 A. In a capitalistic system usually in
20 private corporations the overriding objective is to
21 maximize profit.

22 Q. Now, I understand that based on the
23 material that you looked at that it's your view that,
24 in fact, there is constraint management when we're
25 talking about timber management in Ontario.

1 But would you agree with me, sir - maybe
2 you don't know - but can you agree with me that there
3 are indeed objectives in relation to the land base
4 which forest management units occupy set by the
5 government which are related to non-timber markets?

6 A. Yes, as there are on private lands in
7 the United States. That's analogous.

8 Q. Could you describe for me the kind of
9 objectives that are set -- when you talk about
10 objectives being set on private lands in the United
11 States in relation to non-timber values, are they set
12 by the companies or set by the government?

13 A. Both.

14 Q. Can you describe for me the kinds of
15 objectives you are referring to when you say that
16 non-timber objectives, in fact, exist on private lands
17 in the United States?

18 A. Yes. Some of the lands in the
19 southeast have a wildlife management objective for
20 production of animals that are harvested in commercial
21 hunting operations. That's one. Do you want more?

22 Q. Okay. Now, Mr. Patch, you indicated
23 in your evidence, that at one time in New Brunswick
24 that you would have to sort of -- you identified the
25 areas where you couldn't carry out timber management,

1 but I think you said, but what you wanted to do
2 elsewhere you could do basically what you wanted.

3 MR. PATCH: A. I certainly hope I didn't
4 put it in those terms because there's nowhere where
5 anybody can just run out and do what they want.

6 Q. Well, okay. You said that we had
7 applied various constraint management; i.e., we
8 couldn't do anything in the areas of the concern but we
9 could do what we wanted elsewhere. Now --

10 A. If that was a quote it would have
11 been with reference to whether somebody had made a
12 choice to cut an area and what was available for
13 cutting in a constraint area, you could only cut and
14 follow a guideline approach or not cut at all; whereas,
15 elsewhere, if it wasn't in an area of concern
16 equivalent, then it would be available for blocking for
17 regular timber harvest.

18 Q. There were no restrictions then based
19 on wildlife considerations in those other areas?

20 A. The restrictions would be that in New
21 Brunswick there's a clearcut size maximum.

22 Q. Right. And, Dr. Thomas, I think you
23 were asked about -- it was suggested to you in a
24 question by counsel that MNR has proposed non-timber be
25 addressed through the AOC process and you were asked

1 about the adequacy of that.

2 You said: Well, that's not an invalid
3 approach, and then you explained the difference between
4 constraint and techniques.

5 Do either of you have any understanding
6 as to whether wildlife habitat is considered sort of on
7 a range basis as opposed to specific geographical
8 values like moose licks in Ontario in timber management
9 planning.

10 DR. THOMAS: A. That was fairly
11 convoluted. What's the question exactly?

12 Q. All right. When people talk about
13 the area of concern planning process--

14 A. Yes.

15 Q. --I think it conjures up in most
16 peoples' minds there's a moose lick, there's an aquatic
17 feeding area, there's a particular value, an eagle's
18 nest, you see that and you protect it somehow, and if
19 you do that that is how you deal with non-timber
20 values, that's what the AOC process means.

21 A. Tell me what AOC -- area of concern.

22 Q. Pardon me, area of concern. Now I
23 see Mr. Patch is shaking his head. Is that what the
24 AOC process, the area of concern planning process
25 conjures up in your mind?

1 MR. PATCH: A. Conjures up in my mind a
2 site-specific definition of particular areas on which
3 there are guidelines with respect to what activities
4 you can or can't do.

5 Q. All right. And in the case of moose,
6 would the kinds of things you're talking of -- you
7 think of when somebody asks you about the area of
8 concern planning process, you're talking about moose
9 licks, aquatic feeding areas, a specific patch of
10 habitat that you have to sort of just leave it.

11 A. I'm not a moose expert, but you're
12 describing particular habitat types that are of some
13 value that have been identified. Somebody would have
14 to tell, me are these the list of area of concern
15 conditions that are identified?

16 Q. All right.

17 DR. THOMAS: A. You asked me there, what
18 does it conjure up in my mind?

19 Q. Yes.

20 A. It's an area which you consider to be
21 a key, one of the key points that must be addressed in
22 the plan.

23 Q. Yes.

24 A. It could be as small as a watering
25 hole or a salt lick, it could be as large as the cover

1 conditions on a migration route. That's what it
2 con-jures up in my mind.

3 It doesn't go to just the little
4 specifics of a salt lick, it's the key operative
5 habitat factors that require special attention and
6 overall consideration. That's what it means to me.

7 Q. All right. And is that what you
8 think should be done, there should be overall
9 considerations of those sorts of values in that range?

10 A. Absolutely. This is exactly what I
11 ascribed in the 1979 Wildlife Habitats book that was
12 submitted, that there are general overall things that
13 one considers, but there will always be little specific
14 things that you have to pay specific attention to.

15 Q. Okay. So my question to you, Dr.
16 Thomas is: What understanding, if any, do you have as
17 to whether those overall things are considered during
18 timber management planning in Ontario?

19 I'm not talking about necessarily what
20 you've seen documentation of or how well it may be
21 documented, what understanding do you have as to
22 whether that fuller range of things is or is not
23 considered during timber management planning?

24 A. I think the fuller range of things is
25 considered, that was never my concern; my concern is

1 that there seems to be a lack of a vision of desired
2 future habitat condition, and either -- no forecast
3 into the future of what will happen over time.

4 Q. Right. You saw no documentation of
5 that being considered?

6 A. That's correct. I can't believe it
7 doesn't occur.

8 Q. Pardon me.

9 A. I have difficulty believing that it
10 doesn't occur, but I didn't see any documentation of
11 it.

12 Q. You have difficulty believing it does
13 not occur?

14 A. That it does not occur.

15 Q. Okay. Mr. Patch, what's your
16 understanding, if any, as to whether these fuller range
17 of things are or are not considered during timber
18 management planning, leaving aside whether in fact it's
19 documented or not?

20 MR. PATCH: A. I would assume that
21 special areas, areas of concern that would relate to
22 moose needs, I would assume that they are considered.

23 Q. Specific areas?

24 A. Yes. What I would respond there
25 would be consistent with what Dr. Thomas said, and that

1 we would assume that people would identify specific
2 areas that provide unique features that are important
3 to a particular species and then, in some way, consider
4 those in the forest management planning process.

5 In terms of the overall forest and the
6 other needs of particular species, is there a vision of
7 what the future forest compositions should be and what
8 that will provide or support. I haven't seen evidence
9 of that.

10 Q. Okay, thank you.

11 MADAM CHAIR: Mr. Freidin, we're going to
12 take a break at 10 o'clock today.

13 MR. FREIDIN: Okay.

14 MADAM CHAIR: Is this a good time to do
15 it?

16 MR. FREIDIN: Break time. Five or ten
17 minutes, I might be able to reduce the questioning by
18 20 or 30 minutes.

19 MADAM CHAIR: Well, you've got 20
20 minutes.

21 MR. FREIDIN okay.

22 ---Recess taken at 10:00 a.m.

23 ---On resuming at 10:40 a.m.

24 MADAM CHAIR: Please be seated.

25 MR. FREIDIN: Thank you for the

1 extension, Madam Chair. I can assure you that that has
2 reduced substantially the amount of time that would
3 otherwise have been taken up with questioning.

4 Q. Exhibit 2109 was the overheads that
5 you used to indicate the HSA that you did on a certain
6 portion of the Red Lake plan.

7 Mr. Patch, is that exhibit an example of
8 the level of sophistication of HSA that is intended by
9 the terms and conditions of the Coalition?

10 MR. PATCH: A. I'm not familiar with the
11 specific terms and conditions that relate to habitat
12 supply analysis.

13 Q. Did you review the terms and
14 conditions of the Federation, the Coalition before you
15 came here?

16 A. Yes.

17 Q. And did you review their terms and
18 conditions in relation to habitat supply?

19 A. Yes.

20 Q. You all indicated that you accepted
21 and adopted as part of your evidence the terms and
22 conditions and the rationale for them, and that then
23 leads me to repeat my question: Is Exhibit 2109 an
24 example of the level of sophistication of habitat
25 supply analysis that is intended by those terms and

1 conditions?

2 DR. THOMAS: A. I can tell you my
3 interpretation, which is the required habitat supply
4 analysis, my assumption is that you do the best that
5 you can do under the circumstances. If that's the best
6 that can be done in the short term, I would assume
7 that's what's indicated. That doesn't necessarily mean
8 that that's the best in the long term.

9 Things get better very, very quickly as
10 technology changes in today's world at a very rapid
11 rate.

12 DR. PAGE: A. Term and condition 151 on
13 page 26 says that the HSA models will be developed
14 based on the best available scientific information and
15 professional judgment, and there's no doubt with a
16 little more time we do better.

17 Q. Do I take it then that none of the
18 witnesses then are advocating or saying to the Board
19 that any specific -- you know, you're saying that HSA
20 is something which should be used, but you're not in
21 any way saying to the Board we think that the level of
22 sophistication that that should be done in Ontario is
23 "x", you're saying that's a matter rather - as I
24 understand what you're saying, Dr. Thomas, and through
25 you the other - is you're saying, that's a decision

1 that has to be made by the management agency how best
2 they can go about doing that having regard to a host of
3 considerations?

4 DR. THOMAS: A. I can say precisely what
5 I mean. I think I would stand with exactly, in my
6 understanding exactly what Dr. Page read, the best
7 available information.

8 I have expressed -- used the term SWAT a
9 few times, solve with available technology. Our
10 requirements in the United States are very similar.
11 We're not required to do something we can't do, we're
12 required to use the best available information and the
13 best available techniques. That's all that's required,
14 and the technique and the information have to match.

15 DR. PAGE: A. And there's nothing more
16 embarrassing from personal experience than going to a
17 public forum with a government prepared plan with all
18 the resources of the government and having a member of
19 the public say: Well, I just did this and isn't this
20 better than what you just did, and --

21 Q. Having regard to your comments about
22 changing technology and things change quickly, Dr.
23 Thomas, do I understand it's your view that those kind
24 of decisions then are ones which have to be made, that
25 they are properly made by the management agency who has

1 responsibility and that you would want a system in
2 place where that management agency could, in fact,
3 change based on emerging technology and science?

4 DR. THOMAS: A. Yes.

5 Q. And what do you say to that, Mr.
6 Patch? Would you agree with that?

7 MR. PATCH: A. If the summary was that
8 we use our best available information and the
9 technology and information available to us and we use
10 that and we adapt and change as we improve our
11 knowledge and our tools then, yes, I'd agree with that.

12 Q. And that the decision regarding
13 the -- and that is a decision which would have to be
14 made by the management agency.

15 In New Brunswick, for instance, you were
16 given a responsibility, as I understand your evidence,
17 by the legislature to address this issue of habitat.

18 A. Yes.

19 Q. And in New Brunswick - I think you
20 said this to Mr. Cassidy yesterday - it was your agency
21 through -- it was your agency that decided that certain
22 species would be a good thing to manage and that you
23 would develop an HSA approach the way you did it; is
24 that correct?

25 A. We looked at future forest

1 structures, saw that there might be a problem in our
2 current -- we kept our current management to supply
3 particular types of habitat, so we turned our direction
4 towards emphasizing, understanding those species that
5 might be dependent on habitat, yes.

6 Q. Right. You made that decision. You
7 could have decided on another species but you didn't;
8 is that right.

9 No one told you to choose marten, but you
10 chose for scientific reasons to choose marten; is that
11 right?

12 A. That's correct.

13 Q. No one told you that having chosen
14 marten that the model that you should use, the
15 sophistication of HSA which was required was to look at
16 just balsam fir from 80 to 120 years or, no, you should
17 look at a whole bunch of other little factors as well.

18 You chose the parameters that you would
19 use for the purposes of developing your model; is that
20 correct?

21 A. We decided, based on our
22 understanding of our system, what habitat and what
23 species to be concerned with.

24 Q. Right.

25 A. And based on a logical train of

1 thought.

2 Q. Okay. And --

3 DR. THOMAS: A. I think I understand the
4 thrust of the question. I think I can answer it
5 briefly now, after listening to what's gone on.

6 Yes, you must use the techniques that's
7 available to you, you can pick and choose, and the
8 techniques match the database that's available to you,
9 you can decide to come further on line.

10 However, there is an underlying level of
11 technology, at least in the philosophical sense, that
12 one cannot ignore. There could be absolutely no agency
13 in the world that's dealing with forestry that is not
14 using timber stand prognosis. It's impossible -- the
15 practice of forestry around the world simply would not
16 allow you to do that.

17 And I make the same level here, the
18 statement, and where we are in the business of being
19 able to project wildlife, requires some attempt to do
20 that or you become overwhelmed by the way everyone else
21 in the world does it as a matter of custom, but the
22 specificity should rest in the local condition.

23 Q. Now, Dr. Thomas, am I correct in the
24 United States, whether you're dealing with featured
25 species or -- pardon me, you're dealing with a general

1 obligation, I'll use that word, to address these
2 matters, that there is no legislative mandate that says
3 you have to use -- you have to choose elk, you've got
4 to choose mule deer, that's a choice that's made by the
5 management agency?

6 A. That's correct.

7 Q. All right. Well, having regard to
8 your answeres, gentlemen, why is it that you are
9 advocating that the Ministry of Natural Resources in
10 this province should not have that choice.

11 A. I'm not advocating that at all.

12 Q. All right. And you're not advocating
13 that either, Mr. Patch?

14 A. I didn't say, what I said was --

15 Q. I put that to you because the terms
16 and conditions which you accepted and adopted in your
17 evidence say, on page 25, that moose and pine marten
18 shall be the featured species.

19 144 says, white-tailed deer and pileated
20 woodpecker shall be the featured species in the Great
21 Lakes/St. Lawrence. The terms and conditions in
22 relation to habitat supply say, wildlife habitat
23 objectives shall be established for each of those
24 featured species. It talks about HSA must be developed
25 for those species.

1 Now, if you're not saying -- as I
2 understand your evidence then, you are not supporting
3 the specificity of these terms and conditions in
4 relation to the subject matter, if in fact they're
5 intended as written; i.e., the Ministry shall pick
6 those species, they shall have objectives for those
7 species, and they shall develop HSA for those species.
8 Am I correct you're not agreeing with that?

9 MR. PATCH: What I would say is that
10 moose is a particular species in which they've adopted
11 guidelines for which there's a good understanding of
12 the habitat, that background is in the guidelines about
13 what moose need and so on.

14 Moose is a species of concern obviously
15 in terms of their population levels, to provide public
16 benefits, it's a good conclusion to reach that, yes,
17 it's logical if you have an understanding of moose to
18 choose that as a species, the same with white-tailed
19 deer.

20 Q. Are you saying -- don't tell me about
21 the logic of choosing it. Are you saying that it
22 should be chosen?

23 MR. O'LEARY: Madam Chair, he was not
24 finished responding to the earlier question.

25 MR. FREIDIN: Well, I think he was, and

1 let me --

2 MR. O'LEARY: Well, ask Mr. Patch then.

3 MR. FREIDIN: Q. Mr. Patch, there's a
4 difference between saying it would be a good idea to
5 make some sense and saying that you think that somebody
6 shall do something.

7 Now, do you understand what the legal
8 implications are of the Board accepting these terms and
9 conditions the way they're written?

10 MR. O'LEARY: Well, is that a question to
11 put to a wildlife biologist, Mr. Freidin?

12 MR. FREIDIN: Absolutely, absolutely. I
13 put it to this witness. What do you think is --

14 MR. O'LEARY: Well, with respect, Madam
15 Chair, we haven't heard the other half of what Mr.
16 Patch was going to state.

17 Dr. Thomas indicated that he wanted to
18 respond to that earlier question, and now you're
19 getting into legal matters before they've been allowed
20 to answer the first question.

21 MADAM CHAIR: Let's have -- do you have
22 anything to add to your response, Mr. Patch, with
23 respect to the moose?

24 MR. PATCH: Yes, for the same reason that
25 moose is a good species to choose to do a habitat

1 supply analysis, the other species are good choices to
2 develop habitat relationships, or to develop habitat
3 supply analysis procedures to assess whether their
4 habitat is --

5 MR. MARTEL: I think what Mr. Freidin is
6 trying to put across, though, and you understand
7 legislation having worked around it, the difference
8 between 'may' and 'shall' is always very significant--

9 MR. PATCH: Yes.

10 MR. MARTEL: --to legislators and lawyers
11 and I think Mr. Freidin's worry is the 'shall' being
12 dictated by someone other than the administrative
13 bodies responsible delivering the goods, and Mr.
14 O'Leary might want to argue that point being
15 legalistic, but I think what Mr. Freidin is simply
16 driving at is, should somebody from somewhere else or
17 the agency involved decide the direction, because these
18 terms are very specific and say 'shall', they don't
19 even give you any latitude.

20 MR. PATCH: Well, it's asking me to make
21 an opinion.

22 MR. MARTEL: I don't think he's objecting
23 to the opinion, Mr. Patch.

24 MR. PATCH: No.

25 MR. MARTEL: I think what his worry is is

1 the compulsion.

2 MR. PATCH: If I'm right, I think his
3 worry is the same as your worry, do I have to make a
4 decision as a board to say 'shall'.

5 MR. FREIDIN: All right.

6 Q. And <WHRAEUGS> what's your answer to
7 that?

8 MR. PATCH: A. I'm not a member of the
9 Board.

10 Q. Well, I know, all right. But in New
11 Brunswick no one told you you had to pick your species,
12 you picked it because you thought it was best.

13 A. Yes.

14 Q. Now, let's assume -- let's assume
15 that I'm correct that the legal effect of this Board
16 taking this term and condition and saying, we like it,
17 we adopt it and we put it in our decision, assume I'm
18 correct that the effect of that says to the Ministry of
19 Natural Resources, we don't care what you want to pick
20 as a featured species, Ministry of Natural Resources,
21 but you have to manage for those species and you have
22 got to prepare objectives for those species, all right.

23 Now, that didn't happen in New Brunswick
24 and if it didn't happen in New Brunswick why should it
25 happen here?

1 DR. PAGE: A. I think you're questioning
2 this process.

3 Q. No, I'm not. This is for Mr. Patch.

4 MR. PATCH: A. If it didn't happen in
5 New Brunswick why should it happen here?

6 Q. Yes.

7 A. I think that's what the process of
8 this hearing is all about, for the Board to make a
9 judgment as to whether it should happen or not.

10 Q. Are you suggesting that the Ministry
11 of Natural Resources shouldn't have that option, that
12 they shouldn't be able to choose what species they want
13 to manage for?

14 A. I want to stick with the biology of
15 whether particular species are appropriate to do a
16 habitat supply analysis.

17 Q. All right. You have given me your
18 evidence on that.

19 A. Yes.

20 Q. So you are not saying to the Board,
21 you want to stick to the biology, you are not saying to
22 the Board: Board, you should pick those four species
23 because they're -- you're not saying that they should
24 pick those four species?

25 You're saying if they want to choose four

1 species, if they wanted to, you think these might be
2 okay. Is that what you're saying?

3 A. I guess the limit of what I was
4 saying is that if -- the concept of habitat supply
5 analysis is a logical approach to management, and that
6 one should endeavor to apply it. There are species
7 suggested that would be appropriate to include. Those
8 are laid out in terms and conditions.

9 Q. Might be other ones. Might be other
10 ones?

11 A. There might be other species.

12 Q. Right.

13 A. I would have to look at the specific
14 situation to determine whether there are others that
15 are better or worse.

16 Q. All right. All right. So you
17 haven't done an analysis which would allow you to say
18 to the Board: Board, if you want to pick some species
19 you better pick these four because these are the best
20 ones. You can't say that?

21 A. I have not done an analysis like
22 that.

23 DR. PAGE: A. May I speak to the
24 question, please?

25 Q. Yes. Have you done that analysis?

1 A. Having worked in the area of the
2 undertaking, being an expert on these species --

3 Q. You left in 1978.

4 A. As it turns out, yes. I've been back
5 many, many times though, four times this year alone.
6 My brother lives in North Bay where I'll be returning
7 this weekend as a matter of fact.

8 MR. O'LEARY: Have the forests changed
9 that much, Mr. Freidin?

10 DR. PAGE: I did my doctoral research on
11 otter, went through Thunder Bay repeatedly. I'm still
12 familiar with the area of the undertaking. I think
13 that if you chose any fewer than these species to
14 manage for it would be unacceptable to the public, and
15 that is really the point.

16 MR. FREIDIN: Q. Oh, oh. Is that the
17 reason that you're accepting, you're saying it would be
18 unreasonable to the public.

19 What survey did you do to find out that
20 it would be unacceptable to the public if you didn't do
21 those four?

22 DR. THOMAS: A. I've got a problem.

23 DR. PAGE: A. Because I believe --

24 DR. THOMAS: A. Wait a minute. I don't
25 have the world's best hearing. When Mr. Freidin -- I

1 have no objection to how he performs, but when he
2 really gets wound up and gets going, you guys have got
3 a real accent problem, you know that, and when you talk
4 very rapidly and heatedly I'm having a hard time
5 understanding what's being said.

6 MR. FREIDIN: Well, I will slow down, Dr.
7 Thomas, I apologize.

8 DR. THOMAS: Thank you. I appreciate
9 that.

10 MR. FREIDIN: Q. So what survey did you
11 undertake to say that it would be unacceptable to the
12 public if you didn't have those four?

13 DR. PAGE: A. If I can answer the
14 original question, I believe that the Ministry's
15 objectives are appropriate, that they're managing Crown
16 lands for the benefit of the public, and the purpose --
17 one of the purposes that can be achieved by the Board
18 is to ensure the public that those objectives are being
19 met.

20 And the featured species that have been
21 chosen here, I consider to be an appropriate level to
22 start in terms of species. If you're asking me, I
23 would say this is an adequate list, you should have
24 many more species than the few that are listed here.

25 Q. All right. Dr. Page, it's a good

1 place to start in terms of species?

2 A. Yes.

3 Q. Now, Dr. Thomas, you indicated in
4 your evidence -- there was a discussion about indicator
5 species or habitat, you said it was like a tube, it
6 didn't make any difference you're just looking up a
7 different end of the tube.

8 And you said that you can look at it just
9 from the point of view saying, let's forget about what
10 species you're managing for, it's really the structure
11 we want, the composition in the forest.

12 And I took it from what you were saying
13 is that you can provide that structure in the forest,
14 the desirable structure, all right, without managing
15 for a specific species. Did I understand your evidence
16 correctly?

17 DR. THOMAS: A. That's possible.

18 Q. All right. Now, if that's possible,
19 then I suggest to you then it's not necessary to, in
20 fact, have a forest structure which is felt to be
21 appropriate to manage for a specific or any number of
22 specific species?

23 A. I wouldn't say that. You're entering
24 into an extremely complex area of biology. I merely
25 said there's two ways to approach this which end of the

1 tube one looks through.

2 In terms of the responses to your
3 original question, these species were selected as
4 indicators of various habitat conditions that should
5 occur. There may be another way to do that. There may
6 be other species, however, these are the species in
7 consideration across North America that have
8 continually risen to the surface as appropriate
9 indicators.

10 I guess -- I just make a comment, if it's
11 appropriate. I can understand why the Board is
12 horribly distraught with the inability of the people
13 involved to come in and say: There's several ways to
14 do that, here's a way we collectively agree that we
15 should do it. I don't understand why that's such an
16 intractable problem.

17 The biology is very clear. One can do it
18 through indicator species, one can do it from a more
19 generalized habitat approach. The objective is the
20 primary thing.

21 Those species are appropriate indicators
22 and generally the North American condition of late
23 successional habitats of cover/forage, those that have
24 cover/forage relationships. There may be others, I
25 don't know what they are.

1 Those have been the ones that have been
2 generally selected after sorting from British Columbia
3 to New Brunswick and across the tier of states in the
4 United States that matter.

5 MADAM CHAIR: Excuse me. The Board is
6 going to jump in at this point, Mr. Freidin. And we
7 don't like to do this, we try to let the
8 cross-examination go on without too many interruptions
9 from us, but I think that we're going to have to ask a
10 few questions at this point, Dr. Thomas.

11 And I think you realize in your testimony
12 to the Board that when you come to a jurisdiction like
13 Ontario you're preaching to the converted and, of
14 course, you're not a bit preaching, but I'm saying that
15 by way of, there is no one who has ever come before
16 this Board in almost four years who has said managing
17 wildlife habitat is not absolutely essential. There is
18 no opposition in this province to managing wildlife
19 habitat and recognition that timber management or
20 forest management is the essential mechanism for doing
21 that.

22 What has happened to the Board over the
23 four years of this hearing is what you touched on
24 yesterday, and when we started this hearing in May of
25 1988 the issues that we were faced with with respect to

1 wildlife management were moose and deer and sort of
2 species protection and production to meet the interests
3 of various groups.

4 Over the months and years, as you have
5 pointed out, in your profession that that's a moving
6 target now. What you want to protect and how you want
7 to do it is not quite as straightforward as it was.

8 And while the hearing has gone on MNR has
9 done consultation with intervenors at this hearing,
10 with other members of the public, the government has
11 moved ahead on some initiatives with respect to
12 wildlife management in all its respects all over
13 Ontario, and we are going to be hearing from the
14 Ministry of Natural Resources that perhaps the concern
15 with the featured species and habitat supply analysis
16 is now moving ahead into such things as ecosystem
17 planning and managing for diversity.

18 So this Board no longer has before it
19 perhaps a decision about: Yes or no to habitat supply
20 analysis and featured species, but: Yes or no to all
21 kinds of things that involve very -- no one has come
22 before this Board yet and, I defy anyone to stand up
23 and define simply what ecosystem planning is or what
24 managing and maintaining for biodiversity is, and we
25 are going to be hearing more and more of that evidence.

1 And so I think that your profession and
2 foresters and wildlife biologists are in the middle of
3 great changes and the direction is very much larger, or
4 more complicated even than when we started four years
5 ago. And I suppose the concern is, the Board's concern
6 is the words we use in our decision really are going
7 require your colleagues to do what it says in the
8 decision.

9 We have heard from you, Dr. Thomas, in
10 the United States that every time somebody writes down
11 a law a little bit of your professional prerogative, I
12 believe you said, is taken away, you end up maybe being
13 cornered in ways that had you been able to say from day
14 one, we think we should do it this way, you wouldn't be
15 fighting a rear guard action with respect to changing
16 something that is already in writing.

17 And because we have the opportunity of
18 having you in front of us, the Board wants to hear your
19 views about how, if you were in our position, or you
20 were on the other side with, let's say, the Ministry of
21 Natural Resources, what would you say to this Board
22 with respect to those issues, what kind of regulations
23 and what kind of a legal environment would you want to
24 practise wildlife biology in these days.

25 DR. THOMAS: The first one I will try.

1 When one steps outside the realm of science into a
2 realm of law and decision-making, I don't claim to be
3 any more expert than anyone else you might come up
4 with, but I would say this: First, all of these
5 things, they're presented to the Board as being
6 different kinds of things, they're really all the same
7 thing, it's a matter of how one approaches it.

8 I suspect that the reason people use
9 indicator species is because, as you said, there was
10 this nebulous idea of biodiversity, which we will
11 ultimately be able to deal with, is still out there in
12 front of us a bit. Our real knowledge basis are at a
13 lower level, we'll get there more quickly than people
14 think, we have to start with the available technology,
15 the available information.

16 In my response I did not indicate -- I
17 think in response to questions somewhere along, I
18 answered several times that's one way, that ought to
19 work, that is a way to do it, and I said there were
20 many -- there were perhaps other ways.

21 I don't have -- in my response to the
22 testimony I wanted to indicate that this is one way
23 that one could do that. It should be addressed under
24 whatever words one uses. I would hope that if I were
25 in charge of the U.S. Forest Service I would want -- I

1 would seek direction to do this, not necessarily
2 precisely as put forward, but I would seek direction
3 from the people and representatives of the people to go
4 forth and do these sorts of things.

5 MR. MARTEL: What do those sorts of
6 things mean? I don't want to interfere.

7 DR. THOMAS: Sorts of things mean habitat
8 supply analysis in the conceptual sense, not in
9 necessarily the specific sense.

10 However, I'm sure, I'm absolutely sure
11 that in some form or another, and good as the OMNR is
12 in this province, they're doing habitat projections
13 into the future, if they're not, they're the only group
14 in North America that are not.

15 I know they are, they're too good not to
16 be. I don't know -- as an outsider I give you this
17 observation. I almost come to the conclusion that the
18 sides in the argument are in violent agreement and we
19 are violently disagreeing about minor league details.

20 MR. MARTEL: That's what I asked you the
21 other day. We sit back here and we listen and we have
22 sent them back twice and I've reread the terms and
23 conditions just last week again and pulled my hair out
24 at the lack of progress.

25 DR. THOMAS: I can't address the politics

1 in Canada but, having learned a lot since I've been
2 here listening and reading an incredible amount of
3 volume of paper to try to prepare to be helpful, is
4 that I really detect more agreement than disagreement.

5 I really meant it when I said I think I
6 detect violent agreement. It's merely a matter of once
7 we have agreement to the basic underlying processes
8 that I think any progressive natural resource
9 management agency would have, and I don't detect that
10 Ontario is any different, in fact, they've been
11 leaders. Mr. Patch talked about adoption of techniques
12 and of information from this province. I know to the
13 south we keep up with what's going on here.

14 So the point being is, one is, habitat
15 supply analysis in the generic sense is just a foregone
16 conclusion of land management operations being able to
17 deal with the various attributes of the habitat that
18 lend itself to the sustenance of long-term biodiversity
19 retention. This is a mechanism to get there, it's
20 called featured species, you have to pick an array of
21 featured species that would add up in total, in this
22 witness' belief, to the retention of biodiversity,
23 because we are not ready yet to jump to that conceptual
24 level. I don't think there's any disagreement about
25 that.

1 If one would point out to me, for example
2 by a decision-maker, don't tell me, I would come in and
3 say: I would rather use species this than species
4 that. In other words, instead of using pileated
5 woodpecker and marten for more late successional
6 habitats, someone came in and said: I would prefer to
7 use these other two species, because why, then there
8 would be some rationale: Do I have the information
9 base from anywhere, are they truly primarily associated
10 with those habitats.

11 And if the information base was as good,
12 if the understanding was as good, if the outcome was
13 projected to be, in general, conducive to the
14 sustenance of the older forest succession states, why
15 not use them.

16 But having been through this, the species
17 mentioned here are those that have generally been
18 concluded that satisfy those requirements. There may
19 be others, I don't know, and if there are I would have
20 no objection as a biologist to choosing one of those.

21 MADAM CHAIR: Excuse me, Dr. Thomas, so
22 it's clear to the Board, in your experience in the
23 context of what has been done and is being done in the
24 United States, you still feel strongly that you must
25 look at species with respect to habitat management.

1 For example, how would you look at the
2 position, if it were put to you, that we must maintain
3 all ecosystems because by maintaining ecosystems we're
4 going to assume that that protects wildlife. Are you
5 comfortable with that kind of an approach?

6 DR. THOMAS: If that satisfies your
7 objectives, which I assure you in this province it will
8 not. For example, if we were obeying the law in the
9 United States to maintain viable populations of all
10 species well distributed and they asked me: Are you
11 worried about mule deer and elk in the Blue Mountains
12 of Oregon and Washington, under that -- just maintain
13 viable populations, I'd say no, I have no real concern
14 about the future of deer and elk as a viable part of
15 the community.

16 If you then said though: But I want to
17 change my objective to provide 100 units of
18 recreational activity and hunting, the objective
19 suddenly changes, now it's not just viable populations,
20 it's a population that will produce biological surplus
21 for hunting. So we would emphasize that species above
22 others for that management objective.

23 But these things are not mutually
24 exclusive. Our underlying management objective is
25 biodiversity, though it's not stated that way, to

1 maintain viable populations of all vertebrate species
2 well distributed. That's underlying, we must do that.

3 We can choose, in conjunction with the
4 state government, to produce large numbers of
5 particular species like elk in conjunction with the
6 state for sport hunting, but we first have to satisfy
7 the underlying biodiversity principle then we can
8 emphasize other species.

9 Now, there's a difference between a
10 featured species that's put forward to supply a public
11 demand, say, for hunting and picking a featured species
12 like marten - we do trap martens but it's not a big
13 thing, it may be a larger interest in Canada - or a
14 pileated woodpecker, not because we want to shoot them
15 or trap them, but because they are species that have a
16 close habitat association with the older age forests
17 that are of concern to us.

18 So we would pick them to stand for 40 or
19 50 or 60 other species that are associated with the
20 same habitat. So there's the difference.

21 There tends to be a confusion in the
22 public's mind in the United States of what's the
23 difference between the underlying biodiversity
24 requirement and then the emphasis of species. For gosh
25 sake, why would anybody care how many pileated

1 woodpeckers there are, unless they're about to become
2 extinct. Well, we care because they're an indicator of
3 something else.

4 The spotted owl is trivialized in many
5 peoples' minds because they think, what are you people
6 doing, you know, nobody ever saw this owl before, maybe
7 a hundred people. The owl stands for the old growth
8 system, not the species itself.

9 So when management's predicated on the
10 owl as an indicator, it's all those species that are
11 associated with that habitat. I hope that's helpful.
12 I certainly will try further.

13 MADAM CHAIR: Yes, it is helpful.

14 Mr. Freidin, do you have --

15 MR. FREIDIN: Yes.

16 Q. You've mentioned objectives and you
17 spoke about: Well, you think that biodiversity or
18 managing for that would meet the objectives in Ontario.
19 You said you could pretty well assure us of that, but
20 you agree that objectives can change; do you?

21 DR. THOMAS: A. I'm not sure I agree
22 with the first statement you made. Try again.

23 Q. All right. Well, I thought you said
24 that if you went the landscape approach--

25 A. All right.

1 Q. --that that wouldn't meet the
2 objectives in Ontario.

3 A. It would not meet the objectives in
4 Ontario unless I know what the objectives are.

5 Q. Right.

6 A. If the objectives are retention of
7 biodiversity, there has to be a mechanism whereby that
8 is attained, and the reason you pick an indicator
9 species, say, like a pileated woodpecker or a spotted
10 owl, is because it has a very large home range. You
11 wouldn't pick a species that lives within two or three
12 acres because it wouldn't be sensitive.

13 If you used that one you probably would
14 not assure that the habitat of the species with the
15 largest habitat requirement.

16 Q. Do I understand that this idea of
17 biodiversity and landscape management is, in fact,
18 management of the landscape and the vegetation on the
19 landscape to put it in -- you just define how you want
20 to have it, and it's done in the absence of managing
21 for any particular species or providing habitat for any
22 particular species?

23 A. No, absolutely not. If I left that
24 impression, I did not mean to.

25 Q. All right.

1 A. No. Let me tell you what I meant.
2 That's the arrangement of habitat, considering the
3 habitat requirements of the species, whatever
4 management altered course you take if you use indicator
5 species, it merely has to be considered at landscape
6 scale.

7 Q. All right. I can understand what
8 you're saying, indicating species at the landscape
9 scale, but we heard evidence at the hearing about not
10 managing for specific species but, in fact, trying to
11 determine the various ecosystems that are out there,
12 trying to define what sort of eco representations we
13 want in certain regions or geographical areas, whether
14 they be small or larger, and that if one goes out and
15 recreates on the landscape those kinds of patterns, all
16 right, and those patterns are not based on what any
17 particular species might need, that managing in that
18 way will, in fact, give you your best chance of
19 addressing the needs of all of the wildlife out there.

20 Now, have you ever heard of that approach
21 before?

22 A. Yes.

23 Q. All right. Is it an approach which
24 you discount completely or discount at all?

25 A. I don't discount the underlying

1 premise that one, there are hints in the primeval
2 forest that one can bring forth, and that's the forest
3 in which the animals evolve, that can be brought forth
4 and utilized in our management conceptions, however,
5 the recreation of the primeval forest condition through
6 management appears to me to be interesting but not very
7 apt to be applicable in not too many management units.

8 Q. And let's assume you're not trying to
9 recreate the primeval situation, but you have decided,
10 based on some assessment that some other patterns and
11 juxtaposition of vegetation is the one which, if you
12 created it across the entire landscape, based on
13 ecological principles, that that would look after the
14 wildlife and, therefore, we don't have to deal with
15 managing any specific wildlife species.

16 A. All right. If you did that in
17 principle across the entire Province of Ontario, and
18 you did mimic it and you would be able - you know, you
19 would have to mimic very large fires or frequent fires
20 or -- in other words, you just accept chaos theory. I
21 can't possibly see how you could work that into a
22 coherent timber management plan.

23 But if you accept natural perturbations
24 in the system and you set out to mimic them, at
25 landscape scale I think that would be incredibly

1 difficult. But let's say that you did it. The
2 wildlife in Ontario would probably retain itself, but
3 you would give up essentially a considerable amount of
4 ability to say where you want it, when you want it, how
5 much you want of it, and how that could possibly be
6 coordinated in joint planning -- the planning for joint
7 products, I think it would certainly indicate the
8 introduction of more random type events.

9 Q. But let's assume, and I'm not sort
10 of -- I don't have in my mind any specific
11 configuration or result of a landscape kind of
12 approach, but if that's something that's being looked
13 at, recommended by various scientists, somebody is
14 going to be the first to somehow embrace that approach
15 and do something in terms of management action; is that
16 fair?

17 A. Well, this is all becoming extremely
18 nebulous. If you could tell me what scientist are you
19 talking about?

20 Q. Well, I'm not talking -- I'm asking
21 you a general question.

22 A. I can't -- the question is too
23 nebulous to give a response.

24 Q. All right. If someone was
25 investigating going that approach, seriously thinking

1 about whether in fact it could be the sole method of
2 managing the natural environment out there or part of
3 it, would it be fair to say that if that agency was
4 mandated to do management another way, that before they
5 could consider that they had to manage for certain
6 species, they had to have certain, you know, approaches
7 in relation to those species in place, would that
8 affect their ability to embrace a new approach if they
9 were mandated by law that they had to go this other
10 route with these specific species?

11 A. Is that a hypothetical question?

12 Q. It's a hypothetical question.

13 A. All right. I will answer it in a
14 hypothetical manner. All law is constraining, you must
15 obey the law. However, it ignores the fact that laws
16 are changed every day, regulations are formulated,
17 changed, altered. But in response to your
18 hypothetical, yes, all law is constraining.

19 Q. And as I understood your earlier
20 evidence, you would prefer, in the case that you dealt
21 with, the spotted owl, that you had in fact dealt with
22 that issue and addressed it as opposed to having
23 someone tell you what you had to do?

24 A. No, I just prefer that we had obeyed
25 the law.

1 Q. The law as it was at that time?

2 A. The law as it was at that time.

3 Q. Yes.

4 MR. FREIDIN: If I can just have one
5 moment.

6 Q. Mr. Patch, when you were talking
7 about your HSA model, you said that you were
8 probably -- that you were modeling succession. When
9 you were talking about that, were you talking about the
10 output of your FORMAN wood supply model?

11 MR. PATCH: A. Yes. We can get into a
12 semantic argument but basically you're talking -- the
13 output of the FORMAN model gives age-class of a
14 vegetative community.

15 Q. Right.

16 A. In other words, stage of succession
17 of that vegetative group.

18 Q. Okay. And your FORMAN model, is it
19 based on species, like tree species, or is it based on
20 you do it for individual working groups, or how was
21 that done in your FORMAN model?

22 A. We look at the species association
23 and the development stage and the site and the location
24 of a particular group of stands and assign them to what
25 we call a forest class. A forest class is a particular

1 type. It would be, and as is used in Ontario, the
2 equivalent of, I think, a working group.

3 Q. Right.

4 A. And then a working group at a
5 particular age-class would be a forest class.

6 Q. Okay.

7 A. And then there are yield curves
8 assigned to that.

9 Q. All right. So the succession that's
10 modeed then would be the succession of a forest class
11 as you defined it over time?

12 A. It would be the aging and advancing
13 through time, the projection of--

14 Q. A forest class.

15 A. --of a forest class.

16 Q. Thank you. This is a question for
17 each of you, just answer it from your right to your
18 left.

19 Does the jurisdiction in which you
20 practise require any certification of biologists before
21 they can be involved in timber management planning as a
22 legal requirement?

23 MR. PATCH: A. No.

24 Q. Dr. Thomas?

25 DR. THOMAS: A. My jurisdiction is the

1 United States.

2 Q. All right.

3 A. We make no such requirement in the
4 federal service, however, civil service requirements
5 come very close to qualifying one for registration.

6 There are several states in the United
7 States, I don't recall how many, but there are several
8 that require the ability to meet the certification
9 requirements of the Wildlife Society as a civil service
10 requirement, but that's the -- and it varies from state
11 to state whether we have registered professional
12 foresters.

13 For example, in the federal service there
14 is no certification for foresters, except through civil
15 service requirement, and we do have certified
16 silviculturists but they are only certified inside the
17 agency.

18 Certification requirements for foresters
19 alter dramatically across the United States. In some
20 places there are no requirements; others the
21 requirements are rather stiff.

22 Q. Okay. Dr. Page.

23 DR. PAGE: A. In British Columbia, the
24 legislation requires an individual to be certified and
25 acceptable to the Association of Professional

1 Biologists to be registered as professional biologists.
2 I'm a member of the legislation committee of the
3 association that is preparing legislation that will
4 also require the biologists to be a member of our
5 association to potentially do exactly as you say, to be
6 able to sign off the biological implications of timber
7 management plans.

8 Q. Okay. You gave two parts to your
9 answer. You said you have to be a certified biologist
10 to be a member of the certified biologists association
11 and that makes sense, but I took it from the second
12 part of your answer that there is no legal requirement
13 in British Columbia that you have to be one of those
14 certified biologists or any other kind of certified
15 biologist to be involved in timber management planning.
16 It's something that maybe they're thinking about, but
17 it's not a legislative requirement at the present
18 timber; is that right?

19 A. My answer was that it is not required
20 now but legislation is in preparation.

21 Q. The legislation is in preparation?

22 A. Yes.

23 MR. PATCH: A. I have longer answer, in
24 that the easy answer is, no, it's not required by law
25 in New Brunswick, but the team of people that are

1 employed working on habitat supply analysis
2 development, I recruited them and when I did I
3 recruited people who met certification requirements but
4 not by law.

5 Q. Which certification requirements?

6 A. The Wildlife Society.

7 Q. Thank you. If I could just go back
8 just briefly, I hope, to what we were talking about
9 before about the terms and conditions and the way
10 they're worded.

11 The same concern that I was expressing
12 through my questioning about the wording for featured
13 species and habitat supply is one which my client has
14 in relation to the other areas where you have said, I
15 adopt the terms and conditions as part of my evidence.
16 For instance, there are a whole host of terms and
17 conditions about training.

18 Now, I understand, Dr. Thomas, in your
19 evidence you said, yes, these terms and conditions seem
20 to be -- actually let me try to be as accurate as
21 possible.

22 DR. THOMAS: A. Well, I think I said
23 that that would do the job.

24 Q. Yes, that would do the job. Now, you
25 also were asked -- you were taken through one of your

1 articles and you were asked the question: Well, do the
2 terms and conditions sort of address those; you know,
3 what you've written and what say orally. And you said,
4 well, it seems sensitive to those needs but there may
5 be a different way.

6 A. Yes.

7 Q. I got the impression, and just
8 confirm whether it's correct, that in relation to all
9 of the terms and conditions that were put to you at the
10 beginning of your examination and which you said I
11 adopt them as part of your evidence, that really what
12 you were doing is adopting the general direction of
13 them, but not the specific proposals being made?

14 A. I'd like to put that in my own words.

15 Q. Sure.

16 A. Because I think we're in general
17 agreement. I think I indicated in the evidence in many
18 cases, the principle is correct, this is one way to do
19 it, it ought to work, and I would stay with that, but
20 the principle is what I'm concerned with.

21 Q. Okay. Just to make sure we clearly
22 understand each other. Just using as an example, in
23 the training section they would say certain people
24 should be trained, they should have a requirement that
25 they be -- have a meeting every six months, that the

1 topics which shall be in fact incorporated as part of
2 the training shall be A, B, and C.

3 You're not sort of saying, yeah, that's
4 the way to go, you're basically saying, yes, training
5 in relation to that area is something which is
6 desirable, and that's sort of how we should take your
7 evidence?

8 A. What I meant to say is, in each case
9 I'm in agreement with the principle, I think that the
10 processes outlined would achieve that objective, but I
11 repeatedly said there may be other ways. So I think
12 I'm in agreement with your statement.

13 Q. And, Mr. Patch, are we to take your
14 adoption of the terms and conditions and the rationale
15 in any different fashion than that as indicated by Dr.
16 Thomas.

17 MR. PATCH: A. It would be interpreted
18 in the same fashion.

19 Q. All right. And, Dr. Page, does the
20 same hold true for you?

21 DR. PAGE: A. We testified that we agree
22 these requirements are appropriate and necessary.

23 Q. Well. All right, go ahead, sorry.

24 A. And I feel as a native son that I'm
25 -maybe a little more willing to say, yes, I believe

1 these are necessary.

2 Q. And so when you say that, yes, these
3 are necessary, you're saying these are necessary in
4 every detail?

5 A. That if these standards as identified
6 here as a minimum are not accepted, that's what I mean
7 by necessary, standards such as these.

8 You can have more, you can have meetings
9 twice a week instead of once a week, but to hold no
10 meetings or less frequent meetings, I would not say are
11 necessary.

12 Q. All right. So in terms of training
13 then --

14 A. I do not personally attest to those
15 conditions. That's why I used that example. I don't
16 believe I did; did I?

17 Q. Oh. Which terms and conditions then
18 are you -- what specific terms and conditions then does
19 the comment that you just made apply, the ones where
20 they are necessary?

21 A. Habitat supply analysis and featured
22 species that are chosen, the four species.

23 Q. And that's it?

24 A. I have to check the complete list,
25 but in response to the question, which ones did I feel

1 were necessary, I thought those conditions, habitat
2 supply analysis and those species, which has been the
3 focus of the discussion until now, are necessary.

4 Q. All right. And I want to give you
5 every opportunity to tell me exactly what you think is
6 necessary and the specific detail which has been
7 recommended by the Coalition.

8 And so it's limited to those; that's
9 what -- those are the terms and conditions that you are
10 endorsing and suggesting to the Board or recommending
11 the Board be adopted and imposed on the Ministry of
12 Natural Resources as written? Is that what's you're
13 saying?

14 A. I'll check here. FECs monitoring --
15 now, your question is...?

16 Q. I want you to identify for me the
17 terms and conditions of the Coalition which you say are
18 necessary and, therefore, you are recommending that the
19 Board adopt and include in their decision as written.
20 That's what I want you to tell me.

21 MR. PATCH: A. I read 234 kinds.

22 DR. PAGE: A. No, no, we attested to
23 certain ones.

24 Q. No, no.

25 MR. PATCH: A. Sorry.

1 Q. So when you say they're necessary,
2 what you're saying is, in the way they're written
3 that's the way to do it. Did I correctly interpret
4 your use of the word necessary.

5 DR. PAGE: A. These conditions are
6 necessary to, I would say, to manage, as a biologist,
7 to manage these habitats appropriately and provide
8 those objectives. Whether the Board adopts these as
9 written, I am not willing to offer an opinion on that.

10 Q. Well, all right. But the written
11 word makes a heck of a lot of difference, Dr. Page. We
12 had this discussion for the last hour and you've been
13 listening to it.

14 When we talk about featured species, the
15 terms and conditions here, are you telling the Board
16 that the Board should impose on the Ministry of Natural
17 Resources the legal -- or the obligation, say to
18 Ministry of Natural Resources, you must, it is
19 necessary that you manage for those four species and
20 that you prepare -- you deal with HSA for those four
21 species and that you prepare objectives for those four
22 species. Is that your evidence?

23 A. My evidence is that habitat supply
24 analysis, as Dr. Thomas has attested, is necessary for
25 practising biologists to utilize in the 1990s, that you

1 must also - this is the two that Dr. Thomas referred
2 to - you could look at one end and only look at
3 populations, look at the other end and only look at
4 habitat, habitat supply analysis is one of the methods
5 you can use to take a different perspective and to look
6 at both.

7 If you set objectives only for
8 populations without - as Ontario has for moose - and do
9 not provide the habitat, you will not have the moose,
10 you will not be able to achieve that objective.

11 These terms and conditions I would be
12 willing to accept, have been willing to accept as
13 necessary to meet those kind of objectives.

14 Q. All right. You keep going back to
15 habitat supply analysis. Therefore, you are
16 recommending -- it's your evidence to this Board that
17 they should mandate the Ministry of Natural Resources
18 to manage for the four species which are set out in the
19 terms and conditions. Is that your evidence?

20 A. No. I'm not familiar with the
21 mandate of the Board, I don't know --

22 Q. Well, all right. Let's assume that
23 the effect of the Board taking the term and condition
24 on featured species and putting it in their decision,
25 let's assume that the effect of that is to tell the

1 Ministry of Natural Resources, says: Ministry, you can
2 do all the good things that you can do, but you have to
3 do this, you have to manage for those species, whether
4 you think there's a better species or not, whether you
5 think there's a better approach to managing wildlife or
6 not, you have to do those four species.

7 Now, is that what you think -- are you
8 telling the Board that that's what they should do or
9 not?

10 A. I would not recommend anyone do that
11 and that is not, of course, what these terms and
12 conditions say. These terms and conditions say here is
13 a recommended approach, there are many others that can
14 also be used in concert. These four species would not
15 preclude others.

16 Q. But must these four be done as a
17 minimum. Are you telling the Board that they should be
18 imposed as a minimum?

19 A. As a biologist I have said, and being
20 familiar with the area of the undertaking, I'm
21 suggesting that, yes, I would consider those to be a
22 minimum.

23 Q. Now, Dr. Page, at page 51 of the
24 witness statement, actually it starts on page 50,
25 there's a whole host of questions all put to you

1 directly and they go on -- and if we just look at page
2 51, terms and conditions about expert:

3 "Do you agree with that requirement 101?

4 You talked about other ones. Are these
5 appropriate and necessary?

6 A. Yes.

7 Q. Training requirements, are they
8 appropriate and necessary?

9 A. Yes."

10 Now, basically you said that every one of
11 the ones that were put to you were necessary. Now,
12 when you said necessary - I'm not trying to be cute
13 about this - are you saying -- are you basically giving
14 the same message that Dr. Thomas and Mr. Patch are
15 saying, that the principle, the direction, the ideas
16 are necessary or were you saying, in addition to that,
17 that the specific wording, the specific recommendation
18 was necessary?

19 Do you understand the distinction that
20 I'm making in my questioning?

21 A. Well, no, but I think I'll try to
22 clarify it.

23 Q. You don't.

24 A. If I may. I think that the
25 principles are necessary and the specifics are

1 appropriate.

2 Q. All right. And others would not be
3 inappropriate?

4 A. No, not necessarily. As we said,
5 there are many tools available that can also be
6 utilized.

7 Q. Thank you. Just a few -- Mr. Patch,
8 Mr. Cassidy asked you a lot of questions about when you
9 started doing HSA and you gave us the history of doing
10 forest growth modeling.

11 But am I correct that the first time --
12 the first time that we'll see in New Brunswick in a
13 plan the results of applying habitat considerations
14 from the output of your growth models is going to be in
15 the upcoming plans which are due in 1992?

16 MR. PATCH: A. We looked at and did
17 habitat supply analyses related to the 1987 management
18 plans that were submitted. We didn't impose as a
19 requirement in submission of the plan -- our plans are
20 submitted and they're all at the same time, we go
21 through a cycle, so it creates a tremendous burden of
22 work every five years.

23 We require Crown timber licensees every
24 five years to submit a long-term management plan and
25 then five years later we'll get new information, we'll

1 do another long-term plan and analyses and we know that
2 objectives will change. We've gone on about the
3 adaptive process.

4 1987 plans were submitted, 1992 they were
5 submitted. We analysed habitat supply in '87 plans,
6 this is the first time it's a requirement for the Crown
7 timber licensee as part of their plan to incorporate
8 it.

9 Q. Okay. Now, the way it's going to
10 work now, I guess, in New Brunswick is the companies
11 are going to prepare the plans, you said you're going
12 to give them the habitat objectives and then they'll
13 prepare the plan and then it will come to the
14 government or the ministry for review and approval; is
15 that right?

16 A. Correct.

17 Q. Are those plans which are going to
18 be -- and we've already spoken about the public
19 consultation that is or is not going on in New
20 Brunswick, so I don't want to get into that again -
21 but -- let's bring the public into this question.

22 In New Brunswick, are the public going to
23 be given a description of alternate forest structures
24 which have been thought about through the application
25 of the HSA approach so that they can choose the one

1 that they think is best?

2 A. No.

3 Q. You said yesterday, you were asked
4 about whether you had read certain terms and conditions
5 and there was some confusion about that issue, what you
6 had read because you've read so much.

7 And, Mr. Patch, you said: Well, I read
8 the 1985 and 1987 terms and conditions.

9 A. Well, maybe the description of the
10 undertaking, maybe there is a distinction.

11 Q. Yes, that's right. Because when I
12 heard you say '85 and '87, '85 and '87 are the two
13 years that there was an Environmental Assessment
14 Document, Exhibit 4. The original one was 1985, which
15 was Exhibit 4 and then June of 1987 it was amended.

16 Now, so those are different than -- well,
17 those are different than the proposed terms and
18 conditions that have been put forward by the Ministry.

19 They appear, at least my copy, in a
20 little green book, but Mr. Beram is holding them up.
21 Now, that you understand perhaps the distinction, I
22 want to ask the question again.

23 Did you, in advance of preparing your
24 evidence to come here to give evidence, review the
25 terms and conditions of any of the parties other than

1 the terms and conditions of the Coalition?

2 A. No, I didn't review the terms and
3 conditions.

4 Q. Okay.

5 A. I reviewed - and my understanding
6 might be wrong - the description of the undertaking,
7 and my understanding was that the terms and conditions
8 would say, this is the process that we agreed to
9 undertake.

10 Q. I just want to -- can I see that
11 copy. People for some reason have stopped bringing the
12 Environmental Assessment a long time ago.

13 Do you have the document that you did
14 look at? All right. The document you're showing me
15 now is the document you did review?

16 A. No, it was made available to me.

17 Q. You did have a chance to review this
18 one?

19 A. Well, I might have skimmed over it
20 some months ago, but I would not want to say that I
21 could speak to everything that's in there, knowing
22 everything in there specifically.

23 Q. So you didn't look at this document
24 for purposes of preparing your evidence and setting
25 forth your opinions?

1 A. No. My purpose in coming here, as I
2 have indicated, was to describe and give expert
3 testimony with respect to biology and process.

4 Q. That's fine. The document you're
5 looking at was the August 3rd, 1990 version of the
6 terms and conditions.

7 Now, I've now got one here, next version,
8 draft terms and conditions January the 6th, 1992.

9 A. I have not read that, no.

10 Q. Now, Dr. Thomas - I'm trying to
11 straighten out this possible confusion - did you look
12 at any documents similar to the ones that I've referred
13 to, either the January 6th, 1992 proposed terms and
14 conditions of the Ministry, or the August 30, 1990
15 version?

16 DR. THOMAS: A. Well, I know I didn't
17 read this.

18 Q. You're saying you didn't read the
19 January 6th, '92 ones?

20 A. Right. And this was provided to me,
21 this weekend and I only briefly scanned it.

22 Q. Okay. Dr. Page, did you look -- for
23 the purposes of preparing your evidence and giving your
24 opinion, did you review either the January 6th, '92
25 terms and conditions of the Ministry or the earlier

1 version which is August the 3rd, 1990.

2 DR. PAGE: A. I have reviewed the
3 earlier ones and received the current January 6th
4 edition this weekend and I did my best to see what
5 changes have been made, but I'm not completely familiar
6 with it, no.

7 Q. Did you, gentlemen, have the
8 opportunity - with all the paper you had to look at I
9 would be surprised if you did - but did you have an
10 opportunity to look at the draft terms and conditions
11 of any of the other parties: Forests for Tomorrow, the
12 forest industry, the native groups which are here which
13 are parties.

14 Can you answer that with a straight yes
15 or no?

16 DR. THOMAS: A. My answer to that is, I
17 think the answer is no. I've received an enormous pile
18 of paperwork.

19 Q. All right.

20 A. I don't think so. On the other hand,
21 there's a possibility that I have too.

22 Q. All right. Mr. Patch?

23 MR. PATCH: A. The opportunity was given
24 in that I have those documents, period.

25 Q. But you didn't look at them for the

1 purposes of preparing your evidence, giving your
2 opinions?

3 A. No.

4 Q. Okay. That's correct?

5 A. That's correct.

6 Q. Right. Dr. Page?

7 DR. PAGE: A. I made an attempt to look
8 at all the material, the roughly 3,000 pages to be
9 aware of its existence but, no, similarly I did not
10 read it. But I did flip through, I think, all of the
11 material.

12 Q. All what material?

13 A. Everything I got here. All these
14 binders here, including all the terms and conditions of
15 all the parties.

16 MR. MARTEL: If you don't have enough we
17 can send you more.

18 DR. PAGE: Yes.

19 MR. MARTEL: Tonnes.

20 MR. FREIDIN: Q. Sir, you said you were
21 able to skim.

22 DR. PAGE: A. Yes.

23 MR. O'LEARY: He'll never come back to
24 Ontario again.

25 MR. MARTEL: We've got 700 trees back

1 there in the form of paper.

2 MR. FREIDIN: Q. Did you, Dr. Thomas -
3 again just a clarification of the paper you were able
4 to find the time to review - did you review the
5 cross-examination of the Coalition's Panel 6?

6 DR. THOMAS: A. Tell me who was on it?

7 Q. All right. Panel 6 was Dr. Quinney
8 talking about featured species and biodiversity. You
9 indicated you reviewed his witness statement?

10 A. Yes.

11 Q. Did you review the cross-examination
12 of Dr. Quinney by Forests for Tomorrow?

13 A. I don't know whether it was by
14 Forests for Tomorrow. I read some cross-examination of
15 Dr. Quinney. I don't recall who it is.

16 Q. You indicated that was in Panel --

17 MR. O'LEARY: The earlier panel.

18 MR. FREIDIN: Panel 4.

19 MR. O'LEARY: Yes.

20 MR. FREIDIN: Q. Could you perhaps
21 assist --

22 MR. O'LEARY: The transcripts, as I
23 understand it, are not yet out.

24 MR. FREIDIN: All right.

25 Q. So I take it then that you -- is it

1 fair to say that the transcripts of cross-examination
2 of Dr. Quinney which you did read are the ones that are
3 set out in the new Tab 2 or 3 of the witness statement
4 which lists the transcript references which were read
5 by the witnesses?

6 MR. FREIDIN: Up to 347. All right. Is
7 that right? Can you confirm that for me, Mr. O'Leary,
8 that those were the only ones that were given to Dr.
9 Thomas to read?

10 MR. O'LEARY: Well, up to 347.

11 MR. FREIDIN: Okay. That's Panel 4.

12 MR. O'LEARY: That's attached, as you
13 know, to the witness statement under Tab 14.

14 MR. FREIDIN: Right. All right. I'm
15 just trying to confirm. And I take it from what you're
16 telling me, Mr. O'Leary, that none of the witnesses
17 were then given and asked to review the
18 cross-examination of Dr. Quinney in Panel 6 either by
19 Forests for Tomorrow or by me.

20 MR. O'LEARY: Shall we give them the
21 transcripts that don't exist? No.

22 MR. FREIDIN: Good. Thank you. If I can
23 just have one moment, Madam Chair.

24 I promised I would finish before noon,
25 sort of, and I did. Those are my questions.

1 Thank you very much, gentlemen.

2 Mr. O'Leary may have some questions for
3 you.

4 MADAM CHAIR: Thank you.

5 Mr. O'Leary?

6 MR. O'LEARY: I do, Madam Chair, and I
7 was wondering whether or not it might be possible -- I
8 would like to have a few moments just to go over my
9 notes.

10 MADAM CHAIR: That's fine, or do you want
11 to take a lunch break, or do you want to --

12 MR. O'LEARY: Perhaps that's better. I
13 would appreciate the full lunch break.

14 MADAM CHAIR: All right. If that's all
15 right. We just have -- the Board has -- we will do
16 that, we will take our lunch now.

17 Do you want an hour for lunch or an hour
18 and a half?

19 MR. O'LEARY: Yes. Probably come back at
20 one o'clock, will be fine.

21 MADAM CHAIR: Okay, we'll come back at
22 one o'clock.

23 And the Board has just one more question
24 for Dr. Thomas before we leave; and, that is, one
25 impression that the Board has been left with out of

1 habitat supply analysis is that the focus isn't on
2 reserves, reserving areas of the forest for wildlife
3 habitat because you can't count on those exact
4 geographical pieces of the forest to exist into future,
5 you have to keep in mind how you will substitute that
6 habitat on some other part of the landscape over time.

7 But, in the meantime, it gives the public
8 great confidence to know that there are buffers and
9 reserves, no matter how clever the scientists are, no
10 matter how much they're going guarantee you they will
11 provide substitute habitat, you physically can see that
12 today there's a ribbon around a piece of forest and
13 that forest isn't going anywhere in your lifetime.

14 MR. THOMSON: Yes.

15 MADAM CHAIR: How do you address that in
16 the United States, how do you say to people: Well, you
17 can trust us because we're going to do some fancy
18 mapping and we can cut down this area we don't have to
19 leave a reserve here?

20 DR. THOMAS: It's not only the United
21 States, but around the world our trust level with the
22 public in terms of forest management is deteriorating.
23 There is no difference in the United States, therefore,
24 there is the great rush and temptation to go forth and
25 draw circles on maps and to allocate land.

1 I think one of the biggest challenges we
2 have as foresters and wildlife -- forest wildlife
3 biologists that work with forestry is the establishment
4 of a new trust with the public, and in that it's going
5 to be difficult to convince the public the very logic
6 of the things that Mr. Patch and Dr. Page have brought
7 forward, particularly in the boreal forest, that you
8 can't draw a line around a boreal forest stand that's
9 80 or a hundred years old and it will retain itself in
10 perpetuity.

11 Because there is a confusion, and I saw
12 some confusion in the testimony that I read earlier,
13 say from Dr. Mazer -- or Mr. Mazer, an old friend of
14 mine and a colleague, we published once together.

15 There's not a lot that's transferrable
16 except from the old growth question on the Pacific
17 coast on the northwest in British Columbia to the
18 boreal forests, in that those forests do indeed last
19 for centuries and if we draw a line around them we have
20 some degree of confidence that they will last for
21 another hundred years or 200 years, who knows how long.

22 There's a difference between that and
23 seral state forest development that deteriorates and
24 and collapses after a century or a century and a half,
25 and I think that's going to be where the catch is and

1 where we have to - in your province and where we're
2 talking to the people about - that we can indeed
3 replace those habitats.

4 But I don't really know of any other way
5 for responsible scientists to approach the question or
6 responsible land managers, if indeed what my respective
7 colleagues tell me, that those forests will indeed
8 disappear of their own volition, that forest state,
9 rather.

10 Yes, sir?

11 MR. MARTEL: Tell me what you would do.
12 You indicate we can't practise constraint management
13 and yet we have, as we saw when we were up north
14 recently, an eagle's nest sitting there off by itself.
15 We have some constraint managements, AOC, we leave a
16 reserve a certain size in some areas, you've got a
17 series of these.

18 How do you not practise constraint in
19 that sense then? I mean, are you going to just say:
20 Okay, 200 hectares we're not going to cut, or 300
21 hectares, are we going to -- just how do we apply HSA,
22 as the way I've heard it, and account for those things
23 that make up the concerns we have that really are quite
24 small - and you mentioned that earlier today, we have
25 these smaller things that we have to protect - yet, how

1 do we do that?

2 DR. THOMAS: All right. I think again
3 we're dealing with a semantic question with which the
4 people involved are in violent agreement. If I set out
5 and say: We will retain "x" number of trees for snag
6 habitat for cavity nesting birds and the maintenance of
7 cavity nesting birds is agreed upon as an objective of
8 management, then it's not a constraint, it's the
9 satisfaction of an objective.

10 If one is to maximize timber production
11 and somebody says: And you also have to do these other
12 things, and if you do it it causes the timber supply
13 output to drop by seven per cent, that's a constraint.

14 If I say: Don't cut down a tree that an
15 eagle is in, one could say: Well, that's a log that I
16 could run through the saws and it makes "x" board feet,
17 that is a constraint. If the objective is to retain
18 eagle, it becomes a tactic.

19 It's more a philosophical mindset than it
20 is to -- not to say, I certainly don't want to leave
21 the impression that we do not imply or put forth those
22 management techniques except that it becomes a very
23 different thing conceptually if it's a technique to
24 achieve an objective rather than something that's
25 imposed that causes a decline in the primary objective

1 function.

2 MR. MARTEL: Okay. But this is why
3 you've heard me ask a number of times this week, what's
4 the difference between constraint management and
5 setting your objectives.

6 We have an objective, we're going to save
7 bald eagles, we're not going to allow them to become
8 extinct. I still see a constraint. I have that
9 eagle's nest sitting in that one tree, I've got to come
10 to within a certain area.

11 DR. THOMAS: Let me try and go at it.

12 MR. MARTEL: All right.

13 DR. THOMAS: I say if we could go back in
14 time and we were now entering this nation, this
15 province for the first time, or that there was a huge
16 area to the north that nobody had ever manipulated.

17 MR. MARTEL: We have lots of that yet.

18 DR. THOMAS: And I said -- and I've been
19 in charge--

20 MR. MARTEL: Okay.

21 DR. THOMAS: --and we lived off of the
22 fish and the caribou and whatever it produced and we
23 came in and said: That is our primary objective, and
24 somebody comes in and says: We need a mill here and
25 here and here to provide employment for the increasing

1 population and you will produce the timber for those
2 mills, that becomes a constraint on -- so which end of
3 the tube do you look through.

4 And I think, I sincerely believe - and
5 I'm trying very hard to be helpful - I sincerely
6 believe you're straining at gnats when being confused
7 about the constraint issue. It is indeed a constraint
8 if you view it from this end of the tube; cutting the
9 trees is a constraint if you view it from the other
10 end.

11 Try not to think of it that way, try to
12 think of the objective, whatever those objectives are
13 in combination and whatever management approaches we
14 use to obtain those objectives are techniques and
15 tactics not constraints.

16 MR. PATCH: In New Brunswick we have
17 water course buffer strips in terms of areas. Now, we
18 calculate those into, you know, how those areas aren't
19 available for regular timber supply and that kind of
20 stuff, but we still have an approach, if we have bald
21 eagles' nests where we treat it differently.

22 We're not without things that people may
23 view as constraints and certainly might have an impact
24 on reducing areas that may be available for a pure
25 timber supply objective, but we can combine that with

1 looking at what our future forest looks like, not only
2 in those areas, but other areas. We haven't evolved to
3 a process where we don't have some rules that define
4 what activities you can or can't do.

5 DR. THOMAS: There's one other statement
6 I would like to make, is when I talk about constraint
7 management, the application of the constraint is the
8 objective: Don't cut within a hundred metres of the
9 stream bank, don't make a clearcut bigger than 40
10 acres, don't -- and then everybody checks to see if you
11 did that.

12 If you did that you have satisfied the
13 objective. No. Why did you do that? What's the
14 long-term desired future condition? What are the
15 mutual objectives? And then you need to analyse
16 whether doing that will indeed, over time, achieve the
17 objective.

18 Too long did we practise the fact, like,
19 don't make a clearcut bigger than 40 acres, leave a
20 buffer strip along the stream, don't cut down the dead
21 trees, which we quickly found out wouldn't do the job
22 because the dead trees fell down, we had to figure out
23 how to replace them.

24 But when we've had all these don'ts,
25 first, we were recognized as a royal pain in the you

1 know where because we were constantly telling people: .
2 Don't do it. So when we were able to explain and adopt
3 mutual objectives, these became methods of achievement,
4 and then the test was not whether you obeyed the
5 don'ts, but whether the don'ts, as a mechanism, were
6 adding up to produce the desired situation.

7 In many cases they were not because we
8 weren't thinking far enough ahead, we were only
9 thinking in the immediate of being able to apply the
10 constraints.

11 Those worked much better on first entry.
12 The first time we entered an area to cut, they worked
13 really quite well. The second time they didn't work so
14 well, and the third time we couldn't do it at all, if
15 we were going to cut any timber.

16 MR. FREIDIN: I have a question for Mr.
17 Patch which I forgot to ask him.

18 FURTHER CROSS-EXAMINATION BY MR. FREIDIN:

19 Q. Your forests in New Brunswick, have
20 they been fully accessed?

21 MR. PATCH: A. Fully accessed is a
22 relative term. In our Crown timber licences, through
23 most most of them, we have reasonable access. There's
24 still some areas that we're trying to get access to
25 that has to be developed.

1 In relative terms, our forests are
2 accessible, there are some areas that are not.

3 Q. And are you in the midst of
4 harvesting second rotation stands to any great extent,
5 or are you still harvesting stands which were there,
6 you know, you could call them pure virgin stands, are
7 you still harvesting a lot of stands that have never
8 been subjected to harvesting, harvesting by man?

9 A. There are areas that were cut in the
10 past to support a sawmilling industry back in the
11 1800s, so there were selective high-grading activities
12 to take the best trees, that was geared towards spruce
13 and pine. There are areas we're going back in again,
14 but now the emphasis is on pulpwood and it's quite
15 different.

16 The majority of areas in my region that
17 we're currently harvesting -- where currently
18 harvesting is occurring is a forest that originated as
19 a result of a 1920 spruce budworm outbreak. It was a
20 fir forest, it's mature now, it's starting to break up
21 and that's our habitat and our wood supply problem. If
22 we left it alone, it would be falling down and
23 regenerating under itself. So that's the condition of
24 what we're operating.

25 Q. And that forest was --

1 A. It was clearcut before.

2 Q. It was never -- and so can you give
3 me just some ballpark figure as to the percentage of
4 your production land base that's available for
5 harvesting that has not been subjected to harvest by
6 man?

7 A. Projected land base, I don't
8 understand the question. Like, what proportion of the
9 area that's on the Crown timber licences that had been
10 cut before?

11 Q. Right. That's right. Much more
12 succinctly put, thank you.

13 A. We're cutting areas essentially that
14 haven't been clearcut before. We also have areas that
15 have been clearcut for the last 30 years and are now
16 grown back.

17 Q. Percentages. Give me a ballpark.
18 Can you give me a ballpark figure?

19 A. Percentage of land base in different
20 forest condition?

21 Q. No, land base which has been cut
22 before on these licences, and land base which has not
23 been cut before.

24 A. Are you referring to areas that have
25 been cut before that we're going into cut, then it

1 would be almost a very small percentage.

2 MADAM CHAIR: I think the question, Mr.
3 Patch, is: Is there any part of New Brunswick's, I
4 believe you said 3-million hectare forest--

5 MR. PATCH: Yes.

6 MADAM CHAIR: --that has never had human
7 intervention. Is there any part of that forest in
8 which humans have never gone in to take out one log for
9 a sawmill or there's been no human intervention?

10 MR. PATCH: There are probably some.

11 MADAM CHAIR: But that would be a very
12 small per cent.

13 MR. PATCH: All that was specific, and in
14 the old days when they did that they went up watersheds
15 and took out the best stuff that they could log drive
16 and so on. I'm sure that's a similar circumstance in
17 areas in Ontario. No.

18 Anyway, most of the area that we're
19 currently harvesting now were areas that there may or
20 may not have been some degree of human intervention,
21 but it would have been very slight, very small.

22 MR. FREIDIN: Q. All right. Well then,
23 just to follow up then, the same 3-million hectares
24 approximately, what percentage of that area
25 approximately had been clearcut before?

1 MR. PATCH: A. Before when?

2 Q. Before. Ever. I mean, you're going
3 into your harvest --

4 A. I don't know offhand.

5 MADAM CHAIR: Excuse me. You didn't
6 start clearcutting in New Brunswick until 19 --

7 MR. PATCH: In an extensive way, probably
8 not until the last 30 years and much more so in the
9 last 20, and we would have had much smaller clearcuts
10 cuts before then with forest logging in the little
11 areas.

12 MR. FREIDIN: Q. In the last 30 years,
13 what area of the province has been subjected to
14 clearcutting, of that 3-million hectares?

15 MR. PATCH: A. We've probably cut in the
16 order of between, about one and a half per cent of the
17 productive forested area per year.

18 Q. 45 per cent?

19 A. In certain areas it's much less than
20 that though. I would not say that 45 per cent had been
21 cut, but I don't know what the relevance is. We have a
22 particular age structure based on a certain history and
23 proportions.

24 Q. Yes. A lot of that age structure
25 would have to do with forest management or intervention

1 by man or as a result of natural disturbance to a great
2 extent?

3 A. Correct.

4 Q. Right.

5 MR. FREIDIN: Okay. Thank you very much.

6 MADAM CHAIR: All right.

7 Mr. O'Leary, shall we come back at 1:15.

8 MR. O'LEARY: That would be fine, Madam
9 Chair.

10 MADAM CHAIR: Okay.

11 ---Luncheon recess taken at 12:10 p.m.

12 ---On resuming at 1:15 p.m.

13 MADAM CHAIR: Please be seated.

14 Mr. O'Leary.

15 MR. O'LEARY: Thank you, Madam Chair.

16 RE-DIRECT EXAMINATION BY MR. O'LEARY:

17 Q. Gentlemen, my first question is to
18 you, Dr. Page. You recall yesterday towards the end of
19 the day that Mr. Freidin spoke to you regarding the
20 size of the area that the HAP tool in British Columbia
21 could be applied, and you indicated that a
22 50,000-hectare area was easily manageable.

23 He then put to you the question of
24 whether an area of 500,000 hectares was manageable, and
25 you indicated that it would be more difficult. I

1 believe you used the analogy of walking to Vancouver in
2 terms of: It could be done, but it wouldn't be as
3 efficient as flying.

4 Can I ask you, first of all, what would
5 be a reasonable area within which to manage moose
6 habitat to meet the needs the local moose population?

7 MR. FREIDIN: Well, Madam Chair, my
8 question was asked in the context of what size area
9 would be feasible to use for the purpose of using a PC,
10 it wasn't dealing with moose management per se, so I
11 think he's getting into a new area.

12 MR. O'LEARY: Well, if you would like to
13 respond on the basis of what would be reasonable in
14 terms of the use of a PC, that's fine.

15 The purpose of the line of the
16 questioning is so that we can clarify whether it is
17 feasible or it's not feasible, and I thought that would
18 be important both to the MNR and to the Board to
19 understand because that was the intent of your
20 questions, obviously.

21 DR. PAGE: I'll respond, I believe in
22 light of the original question as well, in that the
23 personal computer is basically an unlimited piece of
24 hardware now. Any size of area could be addressed and
25 can be managed, it's the ease with which that is done.

1 An appropriate planning area tends to be
2 based on the number of decisions and the complexity of
3 decision-making process, not the size of the area. So
4 a complicated forest, as we have in British Columbia,
5 it's difficult to assess unless you take a small area
6 at a time.

7 Just for the sake of convenience, you
8 chunk it into small chunks and then you add up those
9 smaller pieces.

10 MR. O'LEARY: Q. All right.

11 DR. PAGE: A. In give Ontario as an
12 example, if the timber management plan we looked at for
13 Red Lake is an example, that entire area can be
14 assessed in a single run of the HSA.

15 Q. Thank you. Now, Mr. Patch, regarding
16 a line of questions, somewhat heated line of questions
17 that was put to you today by Mr. Freidin in respect of
18 the Coalition's terms and conditions with respect to
19 featured species, whether or not you would recommend
20 that they be imposed by this Board on the Ministry of
21 Natural Resources.

22 And part of your response was to the
23 effect that legislation in New Brunswick did not
24 specifically set out the species that are managed in
25 New Brunswick. There isn't something similar - is what

1 Mr. Freidin wanted to know - in New Brunswick to what's
2 being proposed by the Coalition. And I would like to
3 put a hypothetical to you; and, that is, if --

4 MR. FREIDIN: I don't see how a
5 hypothetical arises out of my question. If he wants to
6 clarify an answer he gave to me, but to put a new
7 hypothetical to him, I don't see how that constitutes
8 proper re-examination.

9 MR. O'LEARY: Well, Mr. Freidin, your
10 line of questioning was clearly to the effect that some
11 reason - and I suspect you're going to be bringing it
12 up - but you were suggesting to the Board through your
13 questioning that there was going to be something
14 inherently improper or wrong in the legislature doing
15 that and that the Ministry in New Brunswick would not
16 be capable of carrying out the wishes of the
17 legislature.

18 And I want to find out from this
19 witness -- and you've started down this road and I
20 would like to go down to the end of the road, and
21 determine whether or not it would have been either
22 improper or if the Ministry and its employees in New
23 Brunswick would have been unable to live up to such
24 terms and conditions had they been imposed by the
25 legislature.

1 MR. FREIDIN: Well, Madam Chair, Mr.

2 O'Leary has on a number of occasions in the past wished
3 to ask questions in re-examination to address what he
4 interpreted to be the innuendo of my question or how he
5 thinks I might want to use the answer, and as much as
6 that might be a matter of interest to him, it is not
7 proper re-examination.

8 He can ask for clarification of the
9 answeres which were given, but he can't sort of set up
10 a new subject matter and say: Well, I think really
11 what Mr. Freidin was trying to get at, but he didn't
12 really let you get at it, and maybe we should deal with
13 that. That is a whole new area. I didn't raise it.
14 If he thinks that's what I was talking about, maybe it
15 wasn't -- maybe I was trying to do it for another
16 purpose.

17 MR. O'LEARY: It wasn't a new subject
18 area, in fact, that has been a good chunk of this
19 morning's discussions, whether or not something like
20 this should happen.

21 And I want to ask Mr. Patch whether or
22 not in New Brunswick it would have presented a problem
23 to the Ministry officials and to people like him if
24 they had been told that the featured species of
25 white-tailed deer and pine marten must be managed for,

1 with the ability to add others in the future as well.

2 And I thought that was the line of your
3 questioning, and I respectfully suggest it was, and I
4 thought it would also be of interest to the Board.

5 MR. FREIDIN: Madam Chair, the question
6 was, he was asked about the appropriateness of it, he
7 was asked about whether he would like it, and we got
8 his evidence on that.

9 To ask a question as to whether they
10 could have dealt with it if the legislature said: Do
11 it, I never talked about that, and I don't see how it's
12 going to help the Board.

13 MADAM CHAIR: We're going to ask you to
14 move on, Mr. O'Leary. It seems to us to be a
15 rhetorical question to ask if a civil servant has to
16 abide by whatever the legislature tells him or her to
17 do. Obviously you have no choice in that.

18 MR. O'LEARY: It wasn't a question of
19 whether or not they would comply, it was a question of
20 whether or not they would have found it difficult and
21 whether or not they would have been capable of doing
22 that.

23 So it was intended to be a practical
24 question and, of course, it isn't the case, that's why
25 I put it in the hypothetical. And I believe that's

1 what my friend is most objecting to.

2 But he walked us down the road and got
3 into the issue of whether or not ministry officials
4 should be told by a legislature to do it and the
5 reasoning being that it isn't practical to do that, and
6 I'm simply asking this witness to now be able to
7 complete --

8 MR. FREIDIN: See.

9 MADAM CHAIR: We don't think we're going
10 to get very far with this line of questioning, Mr.
11 O'Leary.

12 MR. O'LEARY: Q. Could I ask you to --
13 2109, could I put that back up on the machine for a
14 second. It's the bottom, bring it down.

15 Mr. Patch, Can I just ask you, I don't
16 think you identified this, what is that dotted line at
17 the bottom of the lower 3, what does that signify?

18 MR. PATCH: A. What that signifies, and
19 I didn't describe it, is a number of marten that would
20 be supported, assuming there's a relationship between
21 amount of area of habitat and density of marten per
22 unit area. That would have been the number of marten,
23 the minimum level that would have been supported if 10
24 per cent of the -- if 10 per cent of the area of the
25 forest was out in 60 plus year old age-classes, then it

1 would support this level as a minimum number of marten.
2 That is what that was meant to signify. I didn't
3 consider that anything, but I was curious about it.

4 Q. All right, thank you. Now, there was
5 a line of questioning, you'll recall, following your
6 discussion of this exhibit and you were asked - and I
7 believe Mr. Freidin put it to the entire panel - you
8 were asked to disregard what you saw documented in the
9 Red Lake Timber Management Plan and you were asked
10 whether or not the MNR might be taking into
11 consideration other areas of concern.

12 And the response, if I can summarize it
13 briefly, was that - and in your case Dr. --

14 MR. FREIDIN: Don't say other areas of
15 concern.

16 MR. O'LEARY: Well, various areas of
17 concern.

18 MR. FREIDIN: I didn't look at areas of
19 concern.

20 MR. O'LEARY: I didn't mean that in the
21 AOC sense, but the fact -- the question was, put aside
22 what you've seen. Do you have a view as to whether or
23 not we are considering other matters which aren't
24 documented in the Red Lake Timber Management Plan.

25 And you gave the response, Dr. Thomas,

1 that you felt that they probably were, that in a
2 province as sophisticated as Ontario they probably are.

3 My first question is whether or not you
4 have a view - and I put this to all three of you -
5 whether or not you have a view as to the importance of
6 documenting the consideration of these other matters?

7 DR. THOMAS: A. Yes, I think they should
8 be documented. I assume they're being done, I can't
9 imagine they're not, but that they be documented and if
10 under our circumstances under which I operate we would
11 be required to document how we intended to achieve our
12 objectives.

13 Q. All right. Now, in respect of the --
14 well, I ask Dr. Page, do you have anything to add to
15 that, or...

16 DR. PAGE: A. Well, just that my
17 experience is that though often these things are
18 concerned, the landscape is still not affected.

19 In other words, the biologist is thinking
20 in the proper terms but doesn't have the tools to be
21 able to implement their concerns in the timber
22 management plan to modify the plan, and the
23 documentation is an important component of identifying
24 those concerns existed.

25 In other words, the absence of

1 documentation does not indicate that there were no
2 concerns expressed.

3 Q. Mr. Patch?

4 MR. PATCH: A. Well, if I understand,
5 you're asking: Is it important to document those
6 things that are important to wildlife or something
7 else, that by recognizing it will have an impact on
8 your decision-making, then it's critical to identify
9 those things that will have an impact on deciding how
10 you're going to harvest, how much and where.

11 Q. It's critical from what vantage
12 point, critical to whom?

13 A. It's critical to those who are given
14 the responsibility to manage, to identify those things
15 that will impact their management actions and those
16 things that will reflect on how well they're going to
17 meet their objectives.

18 Q. And can I ask you, in your review of
19 the Red Lake Timber Management Plan, was there any
20 indication or documentation you saw to the effect that
21 there had been consideration of the impact on marten,
22 pine marten?

23 MR. FREIDIN: Well, Madam Chair, I think
24 we're now, if I might, straying into an area -- I mean,
25 how far are we going to review now what's in the timber

1 management plan for Red Lake and what's not in answer
2 to one question about documentation being important or
3 not.

4 MADAM CHAIR: Look, Mr. Freidin, we've
5 got Exhibit 2109A in front of us, some kind of habitat
6 supply analysis of marten, I think it's entirely
7 appropriate that we see what reference there was to
8 marten habitat in the Red Lake plan and you can respond
9 to that in reply.

10 MR. FREIDIN: All right.

11 MADAM CHAIR: Mr. O'Leary.

12 MR. O'LEARY: Thank you, Madam Chair.

13 Q. Mr. Patch, do you recall whether you
14 saw any documentation that indicated that the Ministry
15 of Natural Resources had considered the impact of the
16 plan over years in respect of pine marten?

17 MR. PATCH: A. I didn't see any
18 documentation to that effect.

19 Q. All right. And can I ask you, Dr.
20 Page?

21 DR. PAGE: A. I'm not aware of seeing
22 the words marten in their report, but there was a
23 mention of furbearer guidelines, the existence of
24 furbearer guidelines.

25 Q. Was there any indication, Dr. Page,

1 in the Red Lake Timber Management Plan which -- as I
2 understand, it's for which years?

3 MADAM CHAIR: 1992 to 1997.

4 MR. O'LEARY: Q. Right. Can I ask you,
5 do you have a view as to when that document would have
6 been prepared?

7 DR. PAGE: A. I'm not certain, but I
8 would hope it would be fairly recent.

9 Q. Subsequent to the beginning of this
10 hearing?

11 A. Yes.

12 Q. All right.

13 MR. FREIDIN: Well -- all right.

14 MR. O'LEARY: Am I wrong?

15 MR. FREIDIN: Well, I don't know whether
16 Dr. Page can say when it was prepared. Maybe it was in
17 preparation for five years, maybe for two years, maybe
18 three months.

19 DR. PAGE: No, there is a date on it. It
20 just slips my mind now what the date actually was.

21 MR. PATCH: I thought it was 91-97.

22 MR. FREIDIN: That has nothing to do with
23 how long it's been...

24 MR. O'LEARY: Q. Is there any
25 documentation in the Red Lake Timber Management Plan

1 which would indicate that the MNR has considered the
2 impact of the plan on the forest landscape over time?

3 DR. PAGE: A. Not that I recall, no.

4 Q. All right. Is there any --

5 MADAM CHAIR: Excuse me, just one
6 question, Mr. O'Leary. The documentation to these
7 plans is very large. Could you identify for the Board
8 which documentation your witnesses saw?

9 MR. O'LEARY: Yes, I could. In fact --

10 MR. FREIDIN: Madam Chair, again, what do
11 you mean by forest landscape. I mean, we're going to
12 get into --.

13 DR. PAGE: I understood the question.

14 MR. FREIDIN: I didn't put the Red Lake
15 Plan in and if they wanted to make some point about how
16 it was done or how it wasn't done in the Red Lake Plan,
17 they should have done it in their evidence-in-chief,
18 with respect.

19 MR. O'LEARY: Well, that's a good
20 question, Mr. Freidin.

21 Q. May I ask any of you gentlemen, did
22 we at any time discuss the presentation that you put
23 together in respect of the Red Lake Timber Management
24 Plan?

25 MR. PATCH: A. No.

1 Q. Dr. Page?

2 DR. PAGE: A. (nodding negatively)

3 Q. Dr. Thomas?

4 DR. THOMAS: A. I didn't do it, so we
5 didn't discuss it.

6 Q. Did I in any way direct you to put
7 this presentation together?

8 MR. FREIDIN: Dr. Thomas talked about
9 having reviewed the Red Lake Plan in talking about area
10 of concerns in his own evidence.

11 MR. O'LEARY: They reviewed --

12 MR. FREIDIN: You had the opportunity --
13 well, Madam Chair, I don't want to get into an
14 argument. You know what my position is.

15 MADAM CHAIR: I know what your position
16 is, Mr. Freidin. You're making --

17 MR. O'LEARY: I can identify those areas
18 we were provided with in response to a letter from Mr.
19 Hanna to Mr. Freidin and we would be happy to produce
20 that as a reference point.

21 We requested the most up-to-date timber
22 management plan of the MNR, we were provided with the
23 the Red Lake Timber Management Plan for 92-97 in its
24 entirety except for certain maps.

25 MR. FREIDIN: We thought \$6,000 worth of

1 maps was enough.

2 MR. O'LEARY: We were provided with
3 several examples, but we were not provided with the
4 whole set.

5 MADAM CHAIR: Were you really provided
6 with all the supplementary information that goes into a
7 plan?

8 MR. O'LEARY: As I understand it, yes.

9 MADAM CHAIR: Okay. And were your
10 witnesses able to read overnight all the supplementary
11 information that went into the plan?

12 DR. PAGE: Book No. 1 it says.

13 MR. MARTEL: You stayed up all night
14 reading it?

15 MR. O'LEARY: It wasn't just last night,
16 they did look at the timber management plan before.

17 MADAM CHAIR: Well, we want to hear in
18 reply, Mr. Freidin, what the documentation is for the
19 Red Lake Crown Timber Management Plan because the
20 Board's understanding is it's not one binder, in fact
21 it can be nine or 10 or 13 binders.

22 And so I guess we're saying, let's get to
23 the point of whether pine marten was mentioned in some
24 summary fashion presumably in the main body of the
25 document.

1 MR. FREIDIN: I think you should know
2 which binders they looked at for the purposes of coming
3 to their conclusions.

4 MR. O'LEARY: Q. Well, perhaps the way
5 to expedite matters would be to go to the Table of
6 Contents, Dr. Page.

7 DR. PAGE: A. That's the first that I
8 heard there was more than one binder. There's
9 certainly no indication here that there's other
10 documentation and it doesn't actually have a particular
11 title other than --

12 MR. FREIDIN: What does it say in the
13 back of the binder. Does it say Book 1.

14 DR. PAGE: On the front here it says Book
15 1, on the Table of Contents, it says Table of Contents.

16 MR. MARTEL: How many books?

17 MR. FREIDIN: I think there are nine.

18 MR. O'LEARY: We'll hear from you, Mr.
19 Freidin, in reply.

20 MR. MARTEL: I asked him. I asked him
21 how many books there were.

22 MR. FREIDIN: I think nine.

23 MADAM CHAIR: There are nine.

24 MR. O'LEARY: Fair.

25 MR. FREIDIN: At least 6. Well, about 9

1 I think.

2 MR. PATCH: The material that I looked at
3 involved two binders. I looked at the contents and
4 what I was interested in was in that one. I don't know
5 how many -- what else was there.

6 DR. PAGE: Plus three maps I believe.

7 MR. O'LEARY: Q. All right. Well, can I
8 take you to page 58. I ask whether or not that, and
9 the following pages, were areas that you reviewed in
10 preparation for this exhibit?

11 DR. PAGE: A. Yes.

12 Q. Yes?

13 A. Yes, they were.

14 Q. All right. And in your discussion in
15 responses to Mr. Freidin's questions you stated there
16 were objectives in this timber management plan;
17 correct?

18 A. That's correct.

19 Q. In fact, one of them appears at page
20 58 No. 5.23, the environmental objective.

21 A. Yes.

22 Q. Is that right?

23 A. That's correct.

24 MR. FREIDIN: He never said that there
25 were objectives for non-timber values in that plan. I

1 don't remember him saying that and I don't think it's
2 appropriate for you to now open the subject matter of
3 whether there are or there aren't.

4 MR. O'LEARY: You used the word
5 objectives; didn't you?

6 MR. FREIDIN: Just because I use the word
7 objectives, Madam Chair, doesn't mean I raised the
8 question as to whether there were non-timber objectives
9 in the Red Lake Timber Management Plan.

10 How can I get to a cross-examination in
11 this hearing without using the word objectives.

12 MADAM CHAIR: I do't think, Mr. O'Leary,
13 we're going to get through your witness' understanding
14 of the Red Lake Timber Management Plan during this
15 re-examination. Why don't you get to the point of the
16 question.

17 MR. O'LEARY: I was. I was hoping that I
18 would be able to just provide you with these several
19 pages, mark them as an exhibit now because we've only
20 filed one or two pages of the Red Lake Timber
21 Management Plan and we've now had Dr. Page identify
22 that these are some of the areas they've looked at in
23 preparing the Exhibit 2109A, and I simply want to ask
24 several questions that arise out of this and then I
25 think we should be done.

1 MR. FREIDIN: Am I going to get a chance
2 to cross-examine Dr. Page on this new evidence?

3 MADAM CHAIR: Well, we'll have to, I
4 think, give Mr. Freidin that opportunity.

5 MR. O'LEARY: Sure.

6 MADAM CHAIR: Now, let me get this
7 straight. With respect to these excerpts from the Red
8 Lake Timber Management Plan, my understanding of the
9 exercise that Dr. Page and Mr. Patch went through last
10 night was not to give their analysis of what the
11 content of the Red Lake plan was, but to simply
12 retrieve or take out data that was presented in the
13 plan so you could do a habitat supply analysis as we
14 see on those two overheads.

15 DR. PAGE: We were interested in
16 reviewing the plan one more time last night and, in
17 doing that, we realized that all the material really
18 was available for a habitat supply analysis so we
19 undertook that analysis. We didn't sit down
20 specifically with that objective initially.

21 MADAM CHAIR: All right. And so we have
22 the results of your self-described fundamental or
23 rudimentary habitat supply analysis of what was in the
24 Red Lake plan.

25 And, Mr. O'Leary, tell the Board again

1 where we're going with this re-examination?

2 MR. O'LEARY: Well, first, I want to
3 simply identify where the information came from and
4 have that included, and also to indicate that there
5 is -- to put some hard copy to the responses in respect
6 of the existence of objectives in the Red Lake Timber
7 Management Plan, and then to complete Mr. Freidin's --
8 and to clarify the response of these witnesses to Mr.
9 Freidin's questions to put it in the context of the
10 objectives that are set out.

11 MR. FREIDIN: Madam Chair, this is going
12 to be my last comment about this one. If they want to
13 say: Does this portion have any relevance for the
14 calculation you made in your cross-examination of how
15 you calculated that model, I have no objection. That's
16 a proper question on re-examination.

17 But to go through here and start raising
18 other sorts of issues which aren't related to that
19 evidence, in my view, is inappropriate.

20 MR. O'LEARY: Perhaps I could coalesce it
21 all down to one question. Can you give me that.

22 MR. FREIDIN: Madam Chair, if it's not
23 directly -- I think I would like the Board to make a
24 decision on this. I mean, if it's not directed to
25 that, then I don't think it's proper to keep putting

1 the question.

2 MADAM CHAIR: The Board agrees with Mr.
3 Freidin's objection, Mr. O'Leary. We have no problem
4 with you asking your witnesses which information they
5 used out of the Red Lake plan, but we do have a
6 problem - since we don't even have the whole plan as an
7 exhibit at this point, and Mr. Martel and I have not
8 read the Red Lake plan for 1992-97 --

9 MR. MARTEL: We don't want to.

10 MR. O'LEARY: Let me boil it down.
11 Actually I think I just have two further questions
12 then.

13 Q. Can I ask you whether or not in your
14 preparation of the exhibit that we have got before us,
15 the overhead, did you determine whether or not caribou
16 was considered by the Red Lake Timber Management Plan?

17 MR. FREIDIN: Madam Chair, what does that
18 have to do with whether they used that for the purposes
19 of dealing with that?

20 MR. O'LEARY: Well --

21 MR. FREIDIN: What's the next question,
22 did you do one of these for caribou?

23 MR. O'LEARY: Q. Well, can I ask you
24 then this: Is there any relationship or significance
25 between your findings in respect of marten and the

1 existence of habitat for caribou over the period that
2 is affected by the Red Lake Timber Management Plan?

3 Dr. Page, could you respond?

4 MADAM CHAIR: I don't understand the
5 question, Mr. O'Leary.

6 MR. O'LEARY: Q. Do you understand, Dr.
7 Page?

8 DR. PAGE: A. I believe so.

9 MR. FREIDIN: Well, I don't understand.
10 Maybe it's unfortunate.

11 MR. O'LEARY: Perhaps in the response --

12 DR. PAGE: As I mentioned when we
13 presented the evidence in cross, it states in here that
14 the caribou and moose management guidelines were
15 applied but it was difficult to determine that from the
16 plan itself; in other words, I couldn't look at this
17 plan, the map, and see the landscape that was being
18 proposed, and it wasn't obvious to me that anything was
19 different because the guidelines had been implied.

20 And there's also no differentiation
21 between this stand would have been cut but has not been
22 cut because the guidelines have been imposed as an
23 example.

24 MR. O'LEARY: Q. Right. Can I ask you,
25 is there any similarity or are there any major

1 differences between the habitat required by pine marten
2 and that required by caribou, Dr. Page?

3 DR. PAGE: A. One of the similarities
4 which is not addressed by this component of the spatial
5 components, that generally the caribou require larger
6 patches of habitat and older patches and the marten
7 prefer those as well.

8 Q. All right. Do the findings as
9 indicated in your analysis have any relationship to the
10 existence of caribou habitat over the period for which
11 the plan affects?

12 A. Well, in its simplest form I would
13 suspect that caribou would follow a similar pattern of
14 population decline over the course of this plan.

15 MADAM CHAIR: Excuse me, Dr. Page. You
16 have no idea whether there, in fact, are any caribou in
17 the vicinity of the Red Lake area.

18 DR. PAGE: Historically there were.
19 There is one area in the north of the plan that is --
20 where there's adjacent cut blocks that I would suspect
21 there may have been some insect or other protection
22 problems, so that's why I said it's not obvious which
23 areas are harvested because of the guidelines.

24 But I would suspect that if there was any
25 area on the map where there had been management

1 specifically for caribou that was the area. That the
2 way the caribou guidelines are applied in that
3 particular case -- my assumption is that that is one of
4 those habitat areas where there's a large series of cut
5 blocks created so somewhere down the road they will
6 produce caribou habitat. In the short term those
7 management strategies are still reducing caribou
8 habitat, but in the future those will be large habitat
9 patches for caribou.

10 MR. O'LEARY: Indeed, Madam Chair, it is
11 precisely that question that we'll be coming to. At
12 page 60 and 61, the four guidelines included in the Red
13 Lake Timber Management Plan, No. 4 is Draft Timber
14 Management Guidelines for the Provision of Woodland
15 Caribou Habitat, and we go to page 62 and it reads in
16 the first full paragraph:

17 "A management unit has been divided into
18 two featured species zones, one designed
19 for moose and one for caribou." So...

20 MADAM CHAIR: But isn't the point of this
21 exercise that Dr. Page and Mr. Patch did last evening
22 that you could have put any wildlife species, it didn't
23 have to be marten, you were trying to show the Board
24 how you could take some forest cover information and
25 from that obtain an idea of whether that kind of

1 habitat would be available for any species you chose.

2 It doesn't matter that it's pine marten,
3 you could have done it some other way with respect to
4 age-class.

5 DR. PAGE: That was our purpose in doing
6 this. Having done it, the results I think were also
7 instructive and I mentioned that it indicated that the
8 application of those two guidelines, the caribou
9 habitat guidelines and the moose habitat guidelines did
10 not result apparently in the provision of habitat for
11 marten.

12 MADAM CHAIR: Well, what we have up here
13 is your analysis of -- a habitat supply analysis of
14 some marten relationship to age of stand?

15 DR. PAGE: Yes.

16 MR. O'LEARY: The significance I believe,
17 Madam Chair, was also the fact that there is a
18 relationship between habitat for marten and habitat for
19 caribou, and Dr. Page just indicated a moment ago that
20 there's a correlation.

21 MR. FREIDIN: Madam Chair, now he's
22 making argument. I mean, you know, if it was really
23 instructive to have that knowledge, then why didn't Dr.
24 Page tell us about that instructive information when I
25 asked him in his cross-examination.

1 Now, you know, we're not going to go
2 through the Red Lake Plan, with respect.

3 MADAM CHAIR: The Board is satisfied, Mr.
4 O'Leary, with the examples we have of this habitat
5 supply analysis and we don't think the details, whether
6 they're from the Red Lake plan or any other timber
7 management plan, are useful right now.

8 MR. O'LEARY: I don't believe we marked
9 that as an exhibit though, Madam Chair. Unless you
10 would like us to file the entire plan at this point.

11 MR. MARTEL: Certainly, if you want.

12 MADAM CHAIR: Mr. Freidin, are you going
13 to be filing the entire Red Lake Crown Management Unit
14 Timber Management Plan?

15 MR. FREIDIN: I think if Mr. O'Leary
16 wants to file that plan as part of his evidence, he
17 should do it through a witness, I can then deal with
18 it.

19 I have no problem -- no objection to him
20 doing it, but I don't know what help it's going to do
21 with filing it now. I much prefer he file it through a
22 witness. I think that's how it should be done in this
23 case.

24 MR. O'LEARY: All right. Good thing
25 we're not in court.

1 MADAM CHAIR: I think Mr. Freidin --

2 MR. O'LEARY: This is the proponent's
3 documentation and I thought it might be of assistance
4 to file them now. But, if necessary, we will file our
5 copy of it.

6 MR. FREIDIN: No, no. I have an extra
7 copy, if you want mine.

8 MADAM CHAIR: Mr. Freidin, look it, we've
9 got in front of us -- what was the previous Red Lake
10 Crown Timber Management Plan, 86-91.

11 MR. FREIDIN: Something like that.

12 MADAM CHAIR: And we have spent hours and
13 hours examining that plan and we have all your
14 examination, your evidence-in-chief on that plan, and I
15 would be very surprised if you can get through reply
16 evidence without referring to the newest version of
17 that. Is that what you're telling the Board, you're
18 not going to refer to --

19 MR. FREIDIN: Well, I don't think a
20 decision has been made whether we need to, in fact,
21 rely on the new version of the Red Lake plan to deal
22 with the issues that are in the plan, but if the Board
23 wishes us to file the material that we have provided to
24 the Coalition, then we can do that.

25 MADAM CHAIR: Well, are you --

1 MR. O'LEARY: I think it would be
2 helpful. We wouldn't have to -- to expedite matters.

3 MADAM CHAIR: Are you having witnesses in
4 Panel 8 or 9 discuss something from --

5 MR. O'LEARY: It may come up in 9.

6 MADAM CHAIR: The Board is going to ask
7 Mr. Beram to sit down with Mr. O'Leary and Mr. Freidin
8 and you sort this out. You come back to the Board and
9 tell us what you're going to do.

10 And we don't want to hear, after today,
11 any objections to anything having to do with the latest
12 version of the Red Lake plan.

13 Okay. Go ahead, Mr. O'Leary.

14 MR. O'LEARY: I think I just have one
15 final question.

16 Q. And that is to help clarify a
17 response, Mr. Patch, that you made in respect to a
18 question by Mr. Martel about how practically would you
19 preserve an eagle's nest if you encountered it at some
20 point during the harvesting.

21 And that arose out of a discussion that
22 involved the differences between constraint management
23 and habitat supply analysis, and I was wondering if you
24 could just elaborate a little farther on how that would
25 actually take place.

1 If you proceed with habitat supply
2 analysis and you looked over the period of time or
3 rotation of the forest, whatever is required under that
4 analysis, how would the habitat supply analysis be
5 different than applying the guidelines for bald eagles?

6 MR. PATCH: A. Bald eagles have very
7 site-specific locations on which they nest and if as a
8 result of your activities and through monitoring you
9 discover where those nests are, then you want to
10 endeavor to not disturb those species.

11 So there are ways in place. Some people
12 might view them as constraints to address the issue of:
13 No, you don't want to disturb that particular site, and
14 so you take a management action to address that.

15 If you can know approximately where those
16 areas are and how much area might be involved in
17 managing for or protecting bald eagles nests, then you
18 might incorporate that into an understanding of, you
19 know, the habitat.

20 Q. I wonder, Dr. Thomas, if you have any
21 experience?

22 MR. MARTEL: Before you go on. I used
23 the eagle as one that was -- because there's some
24 concern about it. It could apply to any sort of value
25 that you wanted to protect, and I'm simply trying to

1 get at it from: What do you call it, a constraint when
2 you discover whatever it is, "x", and you put a buffer
3 around it or you do some sort of action.

4 I think I got this morning was that if
5 you set an objective you then look at, you have your
6 objective and you go about planning how to preserve it,
7 rather than move along and then you got a don't.

8 And I think I wrote down in my book
9 somewhere, if we eliminate the don'ts we're going a
10 long way and move to setting objectives.

11 I see Dr. Thomas shaking his head.

12 DR. THOMAS: Yes.

13 MR. MARTEL: I hope I'm right.

14 DR. THOMAS: It can end up being a don't,
15 but it's a positive statement. Preserve the eagle
16 nest, not turn around and say: Don't cut the trees
17 around the eagle's nest. It becomes an objective in
18 that sense, the other way it's a constraint.

19 MR. O'LEARY: Q. And how would that fit
20 within the habitat supply analysis process?

21 DR. THOMAS: A. I think the best way to
22 refer back to that is to the book that was submitted,
23 Wildlife Habitats in Managed Forests, whereby we said
24 the general overall habitat condition, say, if you were
25 emphasizing martens, whatever, you go through that as a

1 specific, then you turn around and say: We have
2 specific habitat, specific requirements, that we want
3 to be very cautious to either provide or to protect.

4 It's merely a part of the approach, but
5 it's very site-specific.

6 Q. All right. And could you forecast
7 for bald eagles?

8 A. Yes.

9 Q. All right. And in the process over
10 time, would the forecast allow for the preservation of
11 bald eagle habitats in one area -- or eagle habitat in
12 one area and what would be the impact if that was done
13 on the ability to harvest in another?

14 A. All right. Let me state it in my own
15 words. In an objective management approach it would
16 not be stated as a matter of preserving eagle habitat,
17 it would be a matter of providing "x" amount of eagle
18 habitat in a certain place.

19 For example, if you've got an eagle nest
20 tree, nothing lives forever, if that tree's dead, it
21 will come down within some short period of time; if
22 it's in a live tree, even that tree won't stand
23 forever.

24 Well, very obviously you don't want to
25 cut the tree down that an eagle has been nesting in

1 year after year after year, one wants to provide
2 another tree, however, as a replacement when that one
3 comes down.

4 So the objective comes to be provide
5 eagle habitat not necessarily state it as preserve
6 eagle habitat. That might be rather difficult to do
7 over a hundred year time frame.

8 MR. O'LEARY: Madam Chair, those are our
9 questions for re-examination.

10 If I may just thank the panel on behalf,
11 of course, of the Coalition, but I think also on behalf
12 of I don't mean to presuppose the people of Ontario,
13 but they have all attended here during holidays as they
14 had taken it, and Dr. Thomas, Dr. Page, and Mr. Patch,
15 I would like to thank you very much for your assistance
16 in this hearing.

17 MR. PATCH: Thank you.

18 MADAM CHAIR: The Board would also like
19 to thank you for travelling long distances and...

20 DR. THOMAS: Let me offer - it has
21 nothing to do with the hearing - but if I can arrange
22 for you to see anything that you want to. Or to
23 provide any additional information in the United
24 States, I would be happy to arrange that for you.

25 MADAM CHAIR: Thank you very much, Dr.

1 Thomas.

2 All right. -- We have concluded your Panel
3 7 evidence and we return on Monday morning at 10:30 to
4 begin the Panel 8.

5 MR. MARTEL: And you have lots of time,
6 Dr. Thomas, you won't miss your plane, as we said.

7 DR. THOMAS: I appreciate that. Thank
8 you.

9 ---Whereupon the hearing was adjourned at 2:00 p.m., to
10 be reconvened on Monday, February 24th, 1992,
commencing at 10:30 a.m.

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25 BD [C. copyright 1985].

